THE TRACKS OF NEW YORK

Number 3

MANHATTAN AND BRONX ELEVATED RAILROADS

-1920-

by Alan Paul Kahn
and Jack May

ELEVATED RAILROADS - MANHATTAN & BRONX - 1920

ROUTE REF NO	ROUTE NAME	NORTH TERMINAL	SOUTH TERMINAL
1	2ND AVENUE LOCAL Ⓐ	129TH STREET	1) SOUTH FERRY 2) CITY HALL Ⓑ
2	2ND AVENUE EXPRESS Ⓓ	1) FREEMAN ST. Ⓕ 2) BRONX PARK Ⓔ	CITY HALL
3	2ND AVE - ASTORIA LOCAL Ⓐ	DITMARS AVE. - ASTORIA	1) 57TH STREET Ⓖ 2) SOUTH FERRY Ⓓ
4	2ND AVE. - CORONA LOCAL Ⓐ	ALBURTIS AVE. - CORONA	1) 57TH STREET Ⓖ 2) SOUTH FERRY Ⓓ
5	3RD AVENUE LOCAL	1) 129TH STREET Ⓗ 2) BRONX PARK 3) TREMONT AVE. Ⓓ	1) SOUTH FERRY Ⓐ 2) CITY HALL
6	3RD AVE. LOCAL-EXPRESS Ⓓ Ⓘ	1) BRONX PARK 2) TREMONT AVE.	CITY HALL
7	3RD AVE. THRU EXPRESS Ⓓ Ⓝ	BRONX PARK	CITY HALL
8	3RD AVE. SHUTTLE	EAST 219TH ST.	FORDHAM ROAD
9	SOUTH FERRY SHUTTLE Ⓒ	CANAL ST. & 3RD AVE.	SOUTH FERRY
10	WILLIS AVE. SHUTTLE Ⓐ	WILLIS AVE.	129TH STREET
11	34TH ST. SHUTTLE Ⓐ	LONG ISLAND CITY FERRY	THIRD AVE.
12	42ND ST. SHUTTLE Ⓐ	THIRD AVE.	GRAND CENTRAL
13	6TH AVENUE LOCAL	1) 155TH STREET Ⓜ 2) KINGSBRIDGE ROAD Ⓜ 3) 58TH STREET	1) SOUTH FERRY 2) RECTOR ST. Ⓙ 3) 50TH STREET Ⓚ 4) FRANKLIN ST. Ⓟ
14	6TH AVENUE EXPRESS Ⓓ Ⓛ	155TH STREET	RECTOR ST.
15	9TH AVENUE LOCAL	155TH STREET	SOUTH FERRY
16	9TH AVENUE EXPRESS Ⓓ	1) KINGSBRIDGE ROAD 2) WOODLAWN	RECTOR ST.

APR. 1976

NOTES

Ⓐ NO MIDNIGHT SERVICE.

Ⓑ ALTERNATE TRAINS IN NON RUSH HOURS.

Ⓒ MIDNIGHT HOURS SEVICE ONLY.

Ⓓ RUSH HOURS ONLY.

Ⓔ VIA LOWER LEVEL 125TH ST. TO 149TH ST.

Ⓕ VIA UPPER LEVEL 125TH ST. TO JACKSON AVE. BY WAY OF BERGEN AVE. CUT-OFF.

Ⓖ NON RUSH HOURS ONLY.

Ⓗ DURING MIDNIGHT HOURS AND ALL DAY SUNDAY, BRONX PARK USED AS NORTHERN TERMINAL.

Ⓘ EXPRESS IN MANHATTAN, LOCAL IN THE BRONX.

Ⓙ FROM 58TH ST. IN RUSH HOURS ONLY.

Ⓚ FROM 58TH ST. IN NON RUSH HOURS.

Ⓛ EXPRESS FROM 8TH AVE. & 53RD ST. TO 155TH ST. ONLY.

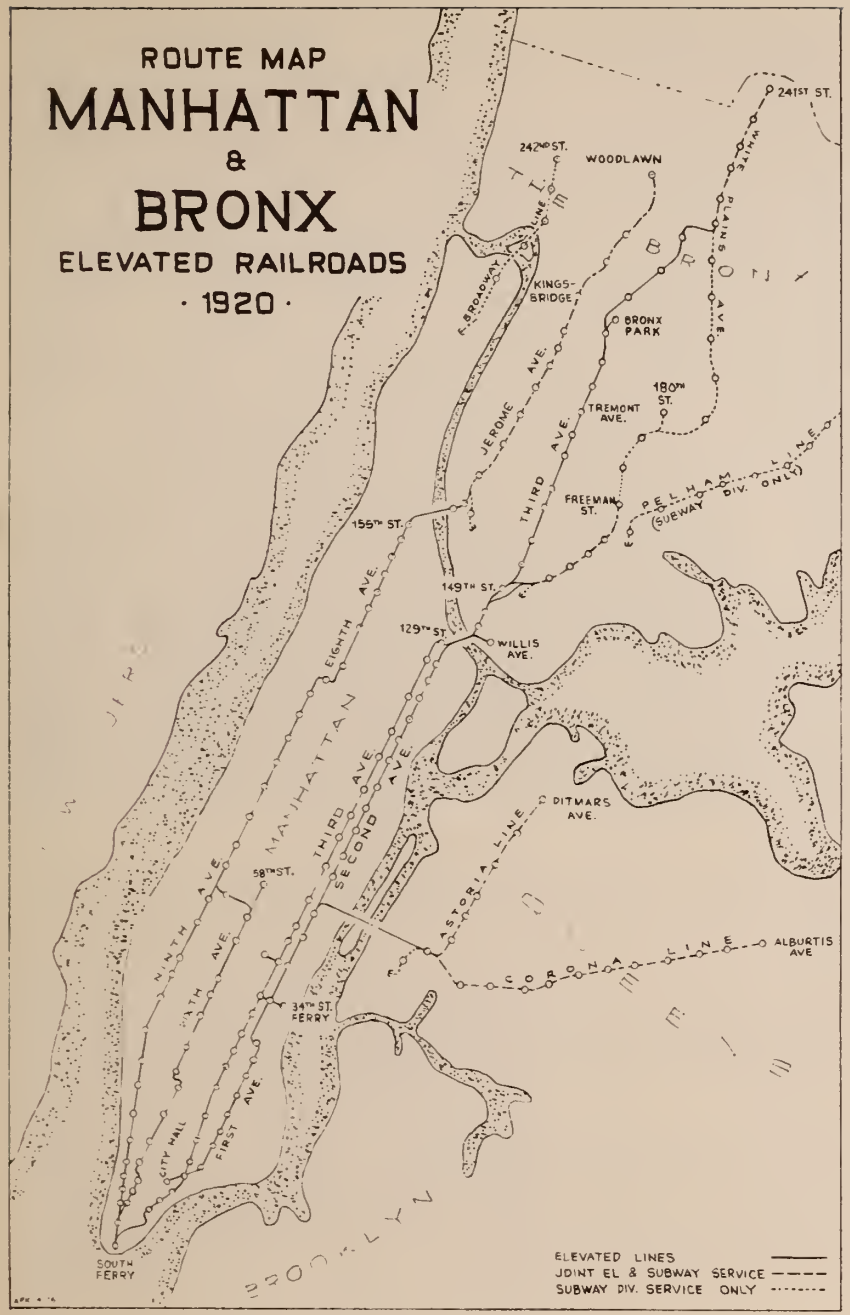
Ⓜ SERVICE TO SOUTH FERRY AT ALL TIMES, WITH ADDITIONAL RUSH HOUR SERVICE TO FRANKLIN ST.

Ⓝ VIA UPPER LEVEL BETWEEN 125TH ST. AND 149TH ST. IN DIRECTION OF RUSH HOUR TRAFFIC. RETURN VIA LOWER LEVEL.

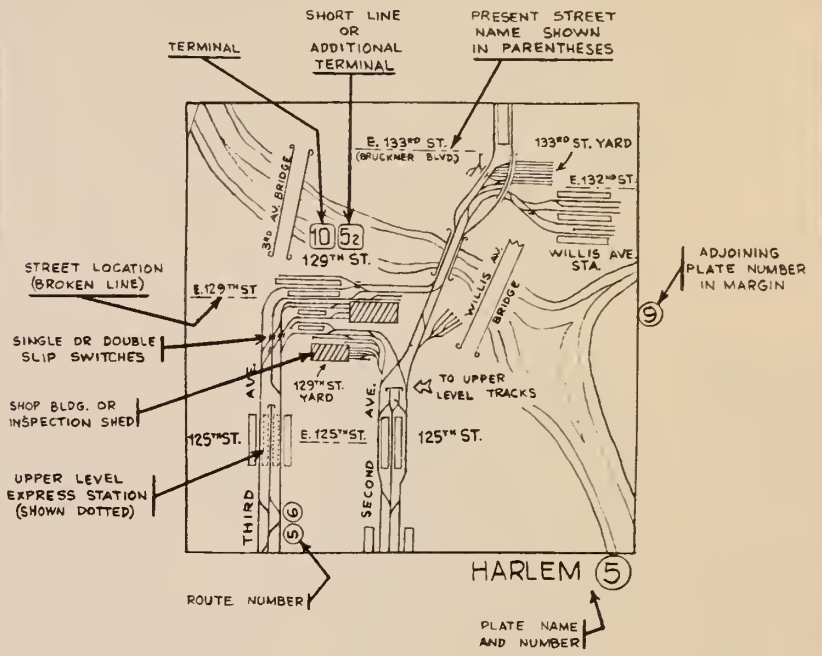
Ex Libris

SEYMOUR DURST

ROUTE MAP
MANHATTAN & BRONX
ELEVATED RAILROADS
· 1920 ·



LEGEND



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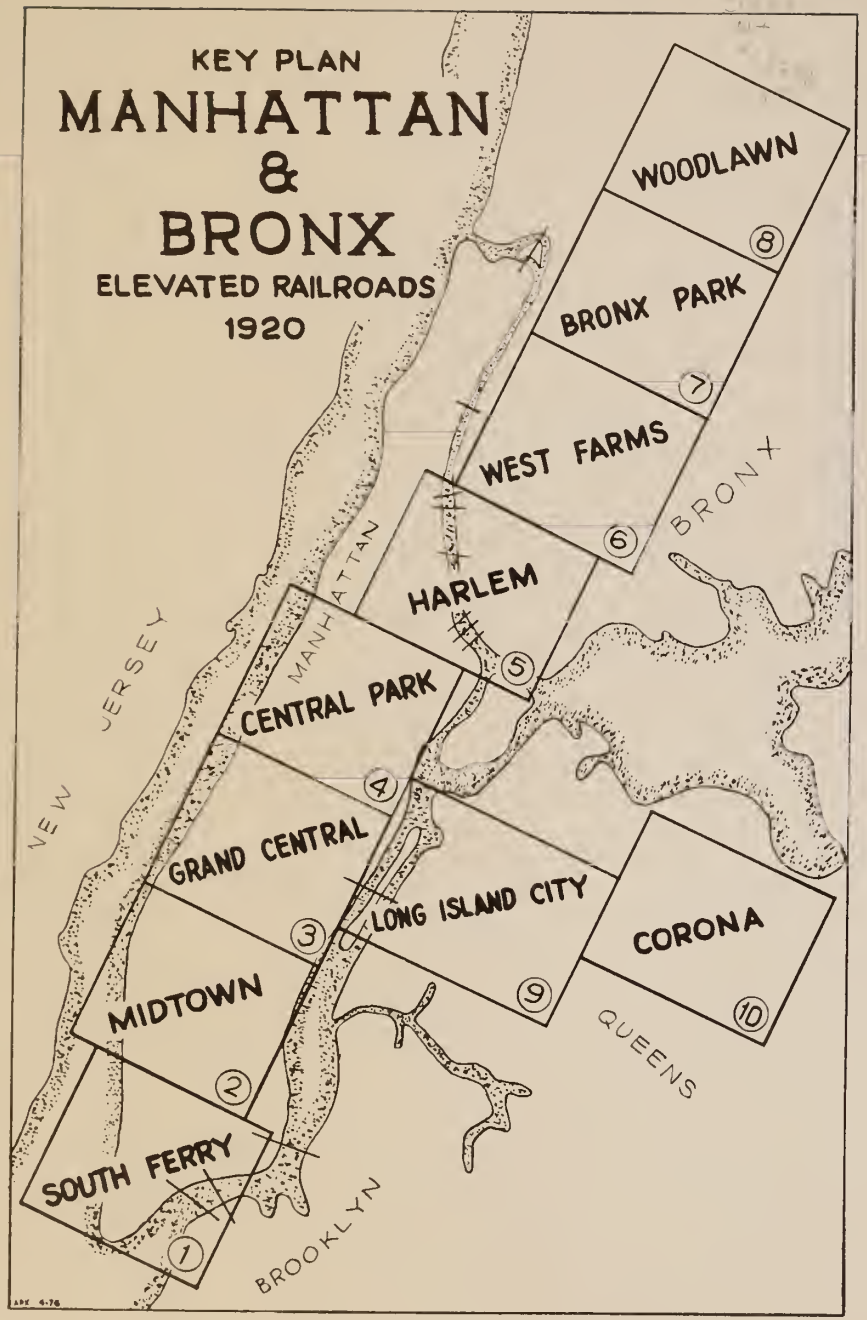
DRAWN BY: ALAN PAUL KAHN - APR. 1976



A highway of wood and steel! This view of the Ninth Avenue el looking south over Eighth Avenue from the 151st Street station illustrates the typical Manhattan elevated roadbed, where wooden ties and wooden walkways predominated. The three-track right-of-way branched into four with a flying junction to separate trains terminating at 155th Street from those routed to and from The Bronx. *Sprague Library photo*

FRONT COVER: A three-car Third Avenue local en route to South Ferry approaches Chatham Square station in 1940. The City Hall branch platforms above Park Row are shown in the foreground while the South Ferry branch platforms, one above the other, are off the photo to the right. *William Lichtenstern*

REAR COVER: A downtown Second Avenue el train snakes through Division Street approaching the Chatham Square interlocking and the junction with the Third Avenue el in 1905. In those days all Second Avenue el trains turned into St. James Place (New Bowery) en route to South Ferry, as track connections permitting them to operate to City Hall were not put in until the junction was rebuilt in 1917. The approach to the Manhattan Bridge is shown in the background. (A decade later, when the BMT subway was built and routed over the bridge, this became one of the few places in New York where the el crossed *under* the subway. *courtesy Edward B. Watson*

photos of signals courtesy M. Richard Deckinger

A BRIEF HISTORY

ONE OF THE PRINCIPAL motivating forces behind the development of mass transit was the desire to make a profit from the business of transporting people. With the advent of steam railways and horse tramways public transportation became faster and more dependable than private transportation, and many companies and entrepreneurs proposed (and occasionally built) surface railways.

By the middle of the nineteenth century New York City's borough of Manhattan, already well established as the nation's major port and largest city, had become severely overcrowded. To cope with this congestion, construction of railways either under the ground or above the streets was proposed. Of the multitude of plans for elevated railways on Manhattan Island, Charles Harvey's line over Greenwich Street and Ninth Avenue was the first built. Construction was begun in 1867, and by 1870, the West Side and Yonkers Patent Railway Company was in operation. The line consisted of a single-track cable-propelled elevated railway with no intermediate stops between Dey and 29th Street.

The railway was not a success, having been plagued by financial problems and frequent breakdowns due to cable failure. By the end of 1871, after being closed and reopened several times, the line was successfully reorganized as the New York Elevated Railroad Company, and was operating with steam power.

By 1877 the single-track line had been extended several times and was operating between South Ferry and 59th Street with many way stations.

Meanwhile, another company, the Gilbert Elevated Railway Company, later the Metropolitan Elevated Railway Company, started building an el line along Trinity Place, Church Street, West Broadway, and Sixth Avenue. The Sixth Avenue el opened in 1878 between Rector Street and 58th Street. By that time the Ninth Avenue el had been double-tracked and its owner, the New York Elevated Railway Company, had begun work on the Third Avenue el. Later that year the line was opened between South Ferry and Grand Central and by the end of 1878 it had been extended as far north as 129th Street. A new company, the Manhattan Railway Company, had been incorporated in 1875 to take over and consolidate the competing elevated railway companies, and completed its work in 1879.

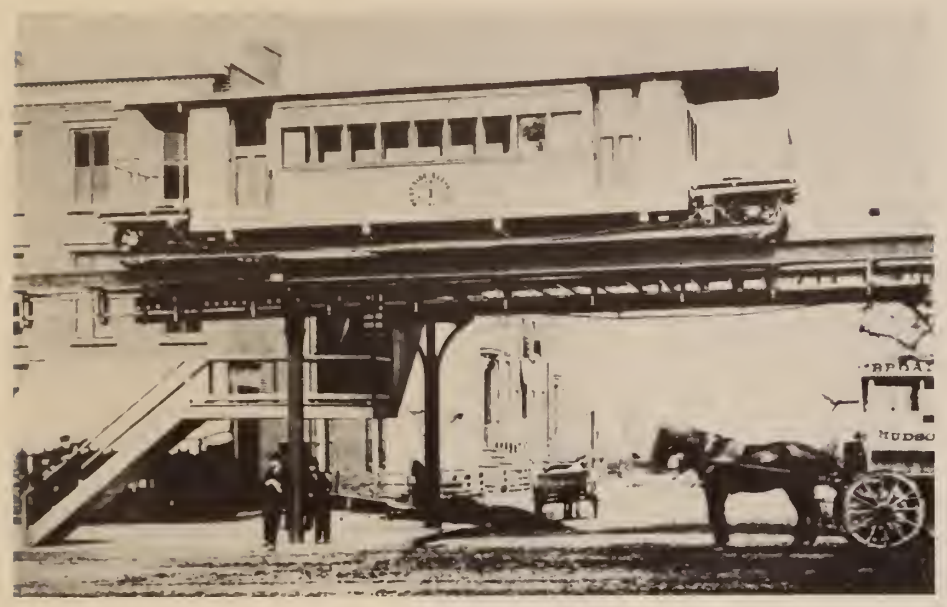
By the end of 1881 the original Ninth Avenue el had been totally rebuilt and the elevated lines in Manhattan were basically completed: the Ninth Avenue el running from South Ferry to the 155th Street terminal of the New York and Northern Railroad; the Sixth Avenue el running from the Ninth Avenue el at Battery Place to 58th Street and also via a spur along 53rd Street back to the Ninth Avenue el; the Third Avenue el from South Ferry and City Hall to 129th Street, with branches along 42nd Street to Grand Central and along 34th Street to the Long Island Rail Road ferry terminal at the East River; and the Second Avenue el from the junction with the Third Avenue el at Chatham Square to 127th Street.

In March of 1880, the Suburban Rapid Transit Company was organized to construct an elevated line connecting Manhattan with The Bronx. Opened in stages from 1886 to 1902, the line ran across the Harlem River, over a private right-of-way to 145th Street, and then continued north on Third Avenue, terminating at Bronx Park station, located at the New York Botanical Garden, just short of 200th Street. A short spur led to the Harlem River terminal of the New York, New Haven, and Hartford Railroad at 133rd Street and Willis Avenue. This spur was operated by the New Haven Railroad at different times between 1891 and 1905. The Suburban's southern terminal originally was the end of the Second Avenue el at 127th Street, but when a new station at 129th Street between Second and Third Avenue was opened in 1889, it became the terminal for the Suburban as well as for the Second and Third Avenue lines. An unusual feature of the Suburban line was the operation of a car elevator to transport rolling stock from the Bronx Park terminal to a small yard on the surface.

In 1891 the Manhattan Railway Company

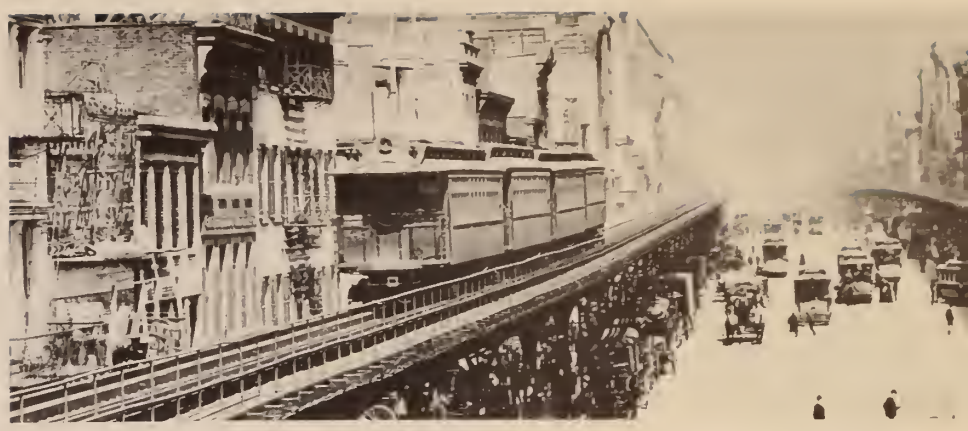
(continued on page 8)

Early Days on the El



THIS PAGE— Three views of the original Ninth Avenue el. UPPER LEFT: West Side elevated cable car No. 1 at 29th Street, northern terminal of the single-track line. The horsedrawn competition is shown on the street below. LOWER LEFT: The cable used to propel Ninth Avenue el cars was divided into four sections. The pulley at the northern end of the third section is shown in this 1869 view at Little West 12th Street, where the line turned from Greenwich Street onto Ninth Avenue. LOWER RIGHT: Intermediate stations, sidings and wooden crossties were added to the Ninth Avenue el in the early 1870s, after the inauguration of steam operation and the removal of the cable. In 1876 the work of extending the Bank Street siding northward along Greenwich Street was nearing completion. *all New-York Historical Society*

OPPOSITE PAGE—UPPER LEFT: A southbound Third Avenue train leaves the 99th Street station in 1895. One or two steam locomotives are shown on a siding below one of the coal bridges spanning the mainline. The 98th Street shop and yards were constructed mainly on landfill. *Interborough Archives.* LOWER LEFT: Looking northeast toward the Ninth Avenue el near 116th Street, circa 1880. The area along Eighth Avenue was farmland when the el was extended to 125th Street in 1879. It is no exaggeration to say that fast, convenient mass transportation developed New York City. *Interborough Archives.* UPPER RIGHT: The Third Avenue el along the Bowery consisted of two single-track structures above the sidewalks on either side of the street until the el was rebuilt and triple-tracked in 1916. This 1903 view northward along the Bowery from Grand Street also illustrates the two pairs of conduit-equipped tracks in the Bowery used by two competing streetcar companies, the Third Avenue (outside) and the New York & Harlem (inside). *New-York Historical Society.* MIDDLE RIGHT: A steam dummy with a train of two shad belly cars in 1877 at South Ferry. The floor between the two trucks was depressed to lower the center of gravity maximizing the stability of trains atop the elevated structure. *Sprague Library collection.* LOWER RIGHT: Two steam locomotives are positioned to enter the City Hall station to power the next two northbound Third Avenue el trains. *Interborough Archives*



SLAND FERRY

(continued from page 5)

leased the Suburban and took over its operation. Through service between Manhattan and The Bronx began in 1896, when Second and Third Avenue trains were extended northward during rush hours.

Meanwhile, the use of electricity for motive power was being developed as a more efficient alternative to steam power. In addition to compressed air locomotives, which were tested several times between 1881 and 1897, the elevated lines began experimenting with an electric locomotive in 1885 and electrified rolling stock in 1886.

After successfully testing multiple-unit electric operation on the Second Avenue el in 1900, the company electrified the entire system with 600-volt D.C. overrunning third rail. MU electric service was phased in from December 30, 1901 on the Second Avenue line to February 18, 1903 on the Ninth Avenue line.

In 1900 the City of New York contracted for the construction of its first subway, which was to be operated by the Interborough Rapid Transit Company (IRT). The IRT then leased the Manhattan Railway Company in 1903, permitting it to coordinate the soon to be opened subway with the elevated railways.

Third Avenue el service was extended from 149th Street to 180th Street and Boston Road via the Westchester Avenue elevated on November 26, 1904. Constructed as an extension of the Lenox Avenue branch of the IRT subway, this line was served by Second and Third Avenue el trains until the tunnel under the Harlem River was placed in service on July 10, 1905. El service was resumed over the connection north of 149th Street during rush hours only when Second Avenue locals were extended to Freeman Street on October 1, 1907.

The Dual Contracts of 1913, which provided for major extensions to the IRT and BMT subway systems, also included improvements and extensions of el lines. The contracts called for the following improvements to the els:

- Extension of the Third Avenue el from Fordham Road to Gun Hill Road, connecting with the White Plains Road subway line (opened October 4, 1920).
- Extension of the Second Avenue el across the upper deck of the Queensboro Bridge to a connection with the Astoria and Corona lines at Queensboro Plaza (opened July 23, 1917).
- Extension of the Ninth Avenue el to The Bronx across the Putnam railroad bridge to a connection with the Jerome Avenue subway line south of the 167th Street station (completed July 1, 1918).
- A new connection between the Third Avenue el and the Westchester Avenue line, via Bergen Avenue, bypassing 149th Street station (opened July 1, 1917).

Express tracks without express stations had been constructed on portions of the Second, Third and Ninth Avenue els long before the lines had been electrified. Partial express service had been operated for several years on the Third Avenue line and an express track on Ninth Avenue between 14th and 116th Streets had been in service since 1892. The Dual Contracts called for the construction of continuous express tracks with express stations on the Second, Third and Ninth Avenue els in Manhattan and the Third Avenue el in The Bronx. Express trains started operating on January 17, 1916. Also included in the contract was a new double deck bridge to carry Second and Third Avenue el trains across the Harlem River, which opened February 22, 1915.

A mood of optimism pervaded the Manhattan el system in 1920, the year of these track maps. The improvements to the system, specified in the Dual Contracts of 1913, had been completed, allowing for both increased service and faster running times. With patronage on the upswing, the future looked bright. The roster consisted of 2213 passenger cars (1492 motors and 721 trailers) and 60 work cars. Additionally, two of the old steam locomotives were still available for work train service.

The el system's route network was at its zenith during the period just after 1920. IRT el trains operated over almost 58 route miles, with some 42 miles assigned to the "Manhattan Division," and the remainder being extensions over IRT subway lines. Patronage peaked in 1921 with a total of 374,293,051 passengers carried. Although route mileage would be increased slightly with the extension of the Corona line to Willets Point Boulevard in 1927, the original system began to contract in 1923,

(continued on page 10)

Just as the streets under the els were in perpetual shadow, the els themselves were in the shadow of the tall skyscrapers that lined the narrow streets in New York City's financial district. In sharp contrast the Sixth and Ninth Avenue els ran through the open air alongside Battery Park from South Ferry to Bowling Green before plunging into Manhattan's famous canyons. UPPER LEFT: A train of MUDC's heads for South Ferry in 1939. The intersection of Broadway and Battery Place at Bowling Green is in the background and the U.S. Custom House is alongside the el. *Herbert H. Harwood collection.* LOWER LEFT: An uptown train has just left the South Ferry terminal and is surrounded by the foliage of Battery Park. *Interborough Archives.* LOWER RIGHT: Looking north from Whitehall Street in 1940 at a three-car train of gate cars approaching Battery Place. *George E. Votava.* UPPER RIGHT: A view of the Second and Third Avenue els on the curve at Coenties Slip in 1940.

Herbert H. Harwood collection

(continued from page 8)

with the abandonment of the 42nd Street spur on December 6. The decline continued with the abandonment of the Sixth Avenue stub from 53rd Street to Central Park and the Willis Avenue spur in 1924, and the 34th Street branch in 1930.

A series of events occurred during the 1930's which eventually resulted in the demise of the entire Manhattan Railway elevated system. As jobs became scarce during the depression, there was a serious drop in patronage on all transit lines including the els. To provide employment, government public works projects were created, one of which was the construction of the IND Sixth and Eighth Avenue lines. These lines paralleled the Sixth and Ninth Avenue els, siphoning off patronage and making them redundant. The perfection of the automobile, with its inherent comforts, and the construction of new limited access highways also caused a significant loss of traffic on public transit. Real estate interests, politicians and those neighborhood residents who no longer needed the els for transportation clamored for their removal, citing noise, dirt and ugliness as the reasons. With patronage declining, the handwriting was on the wall.

The Sixth Avenue el was abandoned on December 4, 1938. Less than two years later, on June 11, 1940, the day before the City of New York took over the IRT, service was discontinued on the Ninth Avenue el south of 155th Street and the Second Avenue el north of 60th Street. The remainder of the Second Avenue el from Chatham Square across the Queensborough Bridge to Queens Plaza survived only two more years and was abandoned on June 13, 1942.

At the end of World War II the sole remnants of the former Manhattan Railway system were the Third Avenue el and the Dual Contracts extension of the Ninth Avenue el from 155th Street to The Bronx, then known as the Polo Grounds shuttle. Retrenchment continued unabated with the abandonment of the Bergen Avenue cutoff in 1946, Chatham Square to South Ferry in 1950, Fordham Road to Bronx Park in 1951, and Chatham Square to City Hall in 1953.

Third Avenue el service south of 149th Street was discontinued on May 12, 1955, marking the end of an era, the abandonment of the last of the Manhattan els. The only survivors of the nineteenth century system were the Suburban line from 149th Street to Fordham Road in The Bronx and the Ninth Avenue structure at 155th Street station. The only elevated tracks left in Manhattan were the aforementioned at 155th Street (abandoned with the Polo Grounds shuttle in 1958) and two short sections of the IRT Broadway line subway which still remain in service, one in the vicinity of 125th Street and the other between Dyckman Street and 225th Street. The last remnant of the Manhattan Railway system, the Third Avenue el, which ran between 149th Street and Gun Hill Road in The Bronx, succumbed to an express bus line on April 29, 1973.

The authors thank the following for their help in obtaining photos and explaining some of the intracacies of the Manhattan el system: Hugh A. Dunne, Francis J. Goldsmith, Jr., Donald W. Harold, Bernard Linder, William J. Madden, Robert L. Presbrey, and Edward B. Watson. Special thanks must be given to George E. Votava, who went out and recorded the el lines on film in 1940 when it became clear they would be abandoned. Without men like him a great deal of our heritage would be lost to the generations of the future.

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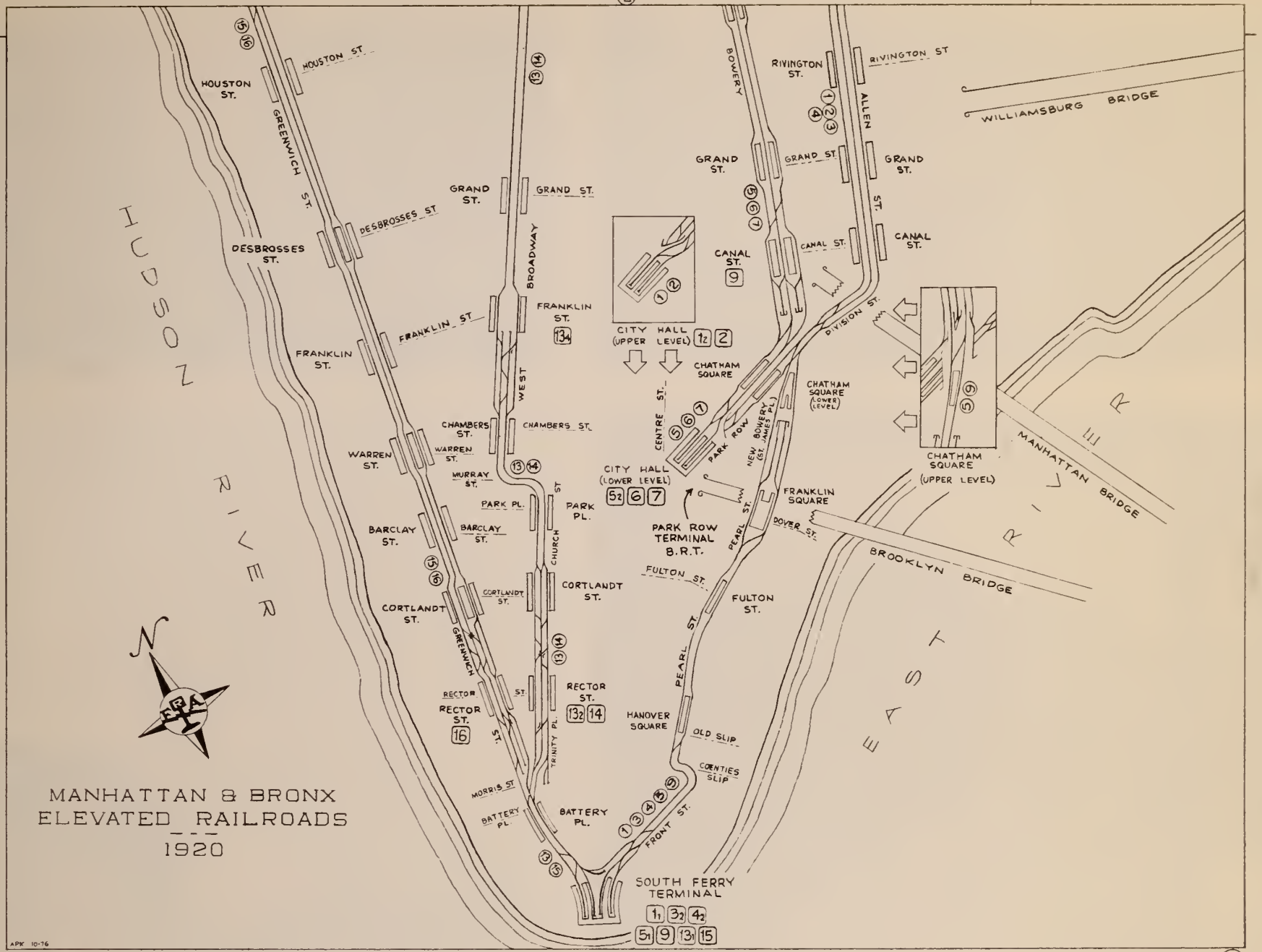
4 West 40th Street
New York, N. Y. 10018

Membership application upon request.

TECHNICAL CONSULTANT: HUGH A. DUNNE

The Chatham Square-City Hall area of lower Manhattan was host to a huge complex of tracks in the sky. Flying and burrowing junctions permitted Second Avenue and Third Avenue el trains to reach either City Hall or South Ferry with a minimum of conflicting movements. TOP: Looking northeast along East Broadway at Chatham Square in 1916, during the reconstruction of the junction. A train of gate cars from Second or Third Avenue heads for South Ferry. *Interborough Archives.* LOWER LEFT: A Third Avenue express of Composites heads toward the lower level of the City Hall terminal in this view southwest along Park Row from Chatham Square in 1940. *George E. Votava.* LOWER RIGHT: Looking southward along the Bowery from the Canal Street station of the Third Avenue el showing the beginning of the Chatham Square junction. Note that access to the lower level (City Hall branch) and the upper level (South Ferry branch) from both the express and local tracks was without grade crossings. *Herbert H. Harwood.* Additional photos of the Chatham Square area are on the front and rear covers.

UPPER LEFT: Coenties Slip was the location of a sharp "S" curve linking the elevated structure over Pearl and Front Streets on the South Ferry branch of the Second and Third Avenue els. The skyline of New York's financial district was already an impressive sight in 1906. *New-York Historical Society.* **LOWER LEFT: The signal tower between the Rector and Cortlandt Street stations was a familiar landmark to passengers on the Ninth Avenue el. Rector Street was the downtown terminal of Ninth Avenue expresses. This view of a southbound local was taken in 1939.** *Herbert H. Harwood collection.* **UPPER RIGHT: Looking north at a three-car train of gate cars at the Franklin Street Station of the Ninth Avenue el in 1940.** *George E. Votava.* **LOWER RIGHT: A white-gloved member of New York City's finest controls traffic at the Manhattan plaza of the Manhattan Bridge adjacent to the Canal Street station of the Third Avenue el. The 1915 reconstruction of the elevated along the Bowery to add an express track resulted in the rather ungainly, makeshift look of the structure.**
The Municipal Archives



MANHATTAN & BRONX
ELEVATED RAILROADS
1920

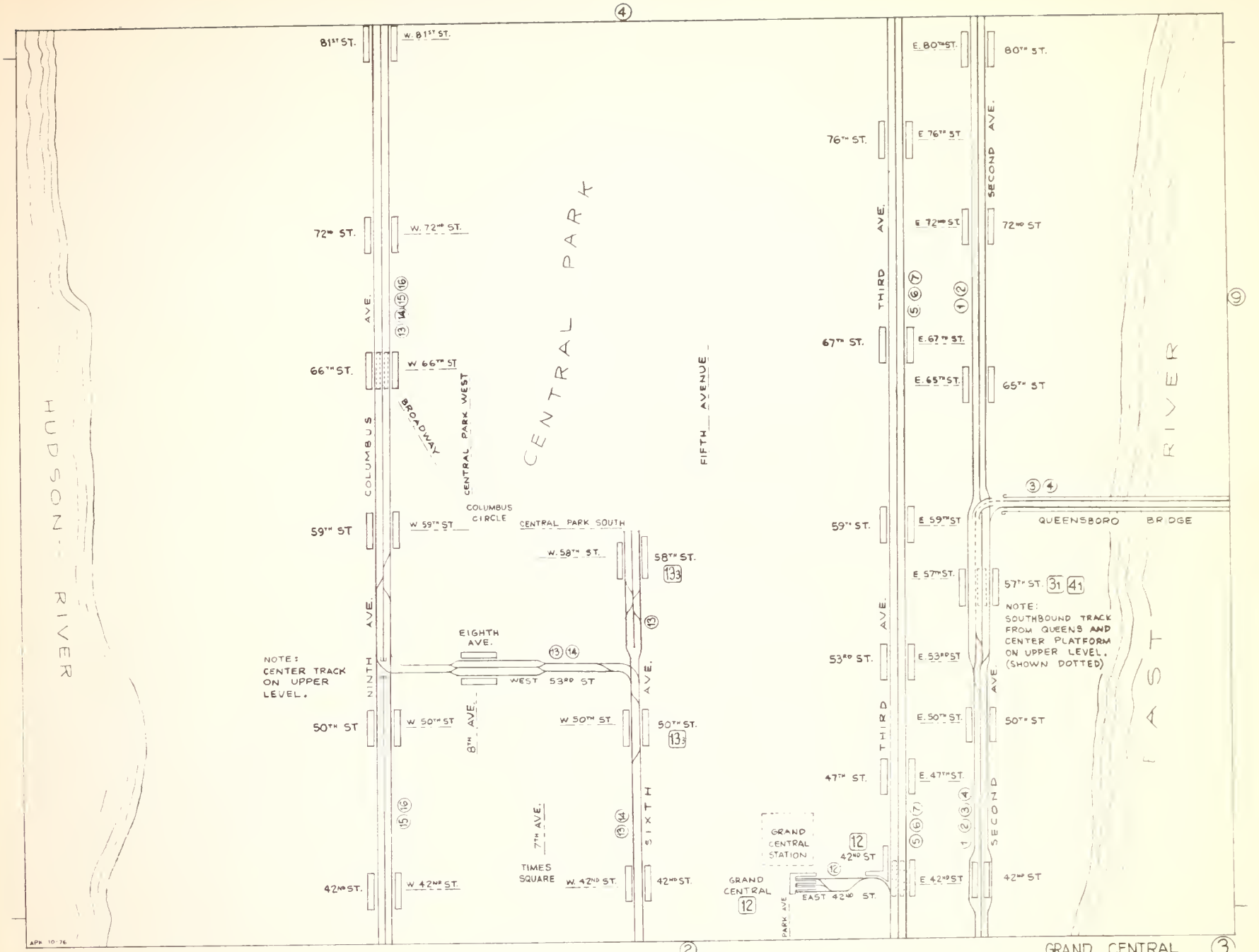
APK 10-76

SOUTH FERRY (1)

UPPER LEFT: A southbound Third Avenue local leaving the bi-level 9th Street station in 1955. In that twilight year of el operation, the train of MUDC cars operated only as far as Chatham Square, as both the City Hall and South Ferry branches had already been torn down. *Sprague Library collection.* **LOWER LEFT: Just south of the 14th Street station the Ninth Avenue el jogged from Ninth Avenue onto Greenwich Street. An uptown local and downtown express are about to pass in this 1939 view.** *Sprague Library collection.* **UPPER RIGHT: The 33rd Street station of the Sixth Avenue el was located at the "crossroads of commerce," Herald Square. Saks and Gimbels department stores are at left and the Hotel McAlpin is at right in this 1937 view. A New York Railways Broadway streetcar, several sightseeing buses and the entrance to the 33rd Street terminal of the Hudson Tubes can be seen in the vicinity of the statue of Horace Greeley. Still New York City's major shopping center, this intersection is now host to a huge subterranean complex, which includes the four-track IND Sixth Avenue subway, the four-track BMT Broadway subway, the three-track PATH (formerly Hudson Tubes) terminal and the approach to the 21-track Pennsylvania Station.** *Interborough Archives.* **LOWER RIGHT: A downtown Ninth Avenue express descends the ramp from 34th Street in March 1940.** *George E. Votava*

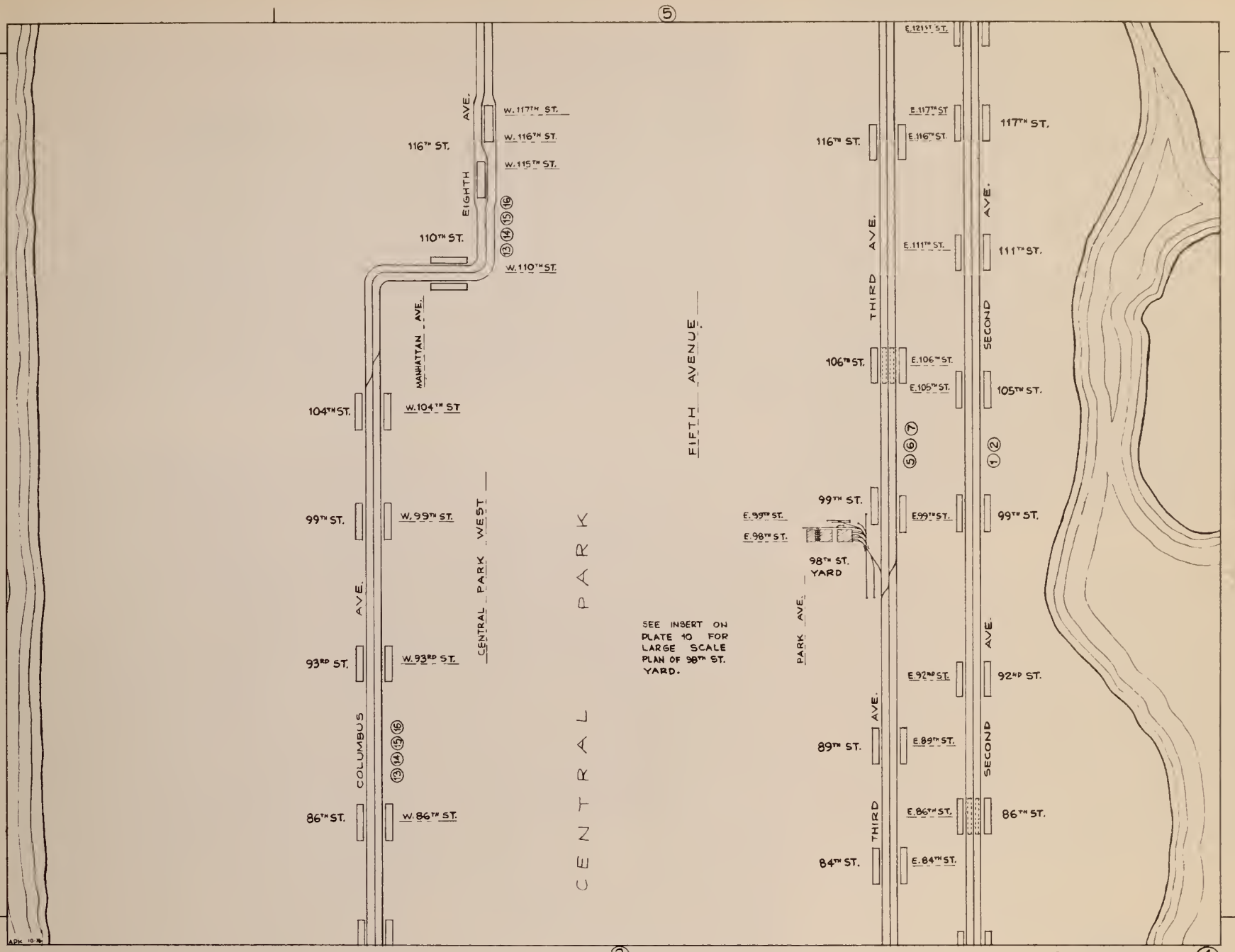
3
HUDSON RIVER
NINTH AVE.
BROADWAY
SIXTH AVE.
HERALD SQUARE
THIRD AVE.
2ND AVE. STA. 34TH ST. BRANCH (LOWER LEVEL)
EAST RIVER
34TH ST.
W. 34TH ST.
E. 34TH ST.
34TH ST. 3RD AVE.
34TH ST. FERRY
34TH ST. STATION 2ND AVE. LINE (ON UPPER LEVEL SHOWN DOTTED)
SECOND AVE.
W. 33RD ST.
33RD ST
W. 32ND ST.
30TH ST.
W. 30TH ST.
W. 28TH ST.
28TH ST.
E. 28TH ST.
23RD ST.
W. 23RD ST.
E. 23RD ST.
NINTH AVE.
SIXTH AVE.
FIFTH AVE.
E. 19TH ST.
19TH ST.
W. 18TH ST.
18TH ST.
E. 18TH ST.
14TH ST.
W. 14TH ST.
E. 14TH ST.
UNION SQUARE
THIRD AVE.
W. 9TH ST.
E. 9TH ST.
9TH ST.
8TH ST.
W. 8TH ST.
E. 8TH ST. (ST. MARKS PL.)
GREENWICH ST.
CHRISTOPHER ST.
BOWERY
FIRST AVE.
W. 3RD ST.
BLEECKER ST.
E. 1ST ST.
FIRST ST.
HOUSTON ST.
WEST 8 WAY
APK 10 76
1
MIDTOWN
2

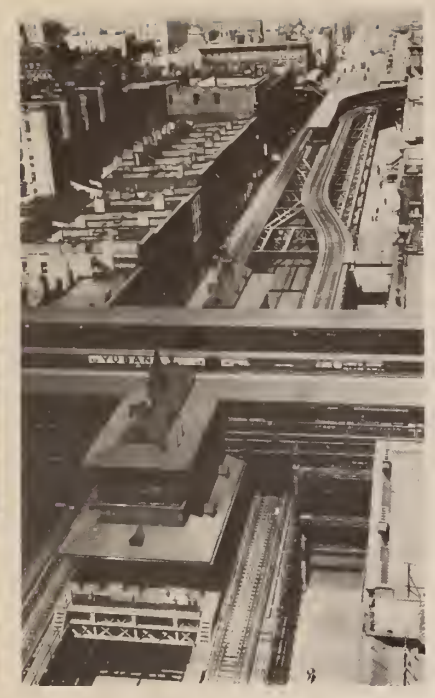
UPPER LEFT: A three-car train of MUDC cars takes the curve from the Queensborough Bridge onto Second Avenue in this 1935 view. The jog in the trackage on the bridge resulted from the relocation of the el's right-of-way from the center of the bridge to the north side when the upper level roadway was put in. *Museum of the City of New York.* **UPPER RIGHT:** Inbound and outbound Second Avenue el trains pass in this view of the grade separated approach to the Queensborough Bridge at Second Avenue and 59th Street. This 1940 photo was taken from the 57th Street station. *George E. Votava.* **LOWER LEFT:** An uptown Third Avenue local approaches the bi-level 42nd Street station in 1954. The circle of light was beamed to illuminate the rear of a train in the station, acting as a safety device to prevent rear-end collisions. In the aerospace technology of today the lights would probably be called an "optical cushion" and cost an astronomical amount of money for research and development. *Herbert H. Harwood.* **LOWER RIGHT:** Looking west along 53rd Street in 1927 one saw the Sixth Avenue el structure make a sharp left turn en route to its junction with the Ninth Avenue el four blocks beyond. Until 1924 this was a "T" junction, with trackage continuing straight up Sixth Avenue to a stub end at the southern boundary of Central Park. The section of the el over 53rd Street was a very famous landmark in New York City, being shown on the curtain of the most famous vaudeville house in the U.S., the Palace Theatre. In a scene of Times Square looking northward, an uptown el train would be depicted by a string of lights flashing at Seventh Avenue then a few moments later at Broadway.
Robert L. Presbrey collection


4
81ST ST.
W. 81ST ST.
72ND ST.
W. 72ND ST.
66TH ST.
W 66TH ST
59TH ST
W. 59TH ST.
50TH ST
W 50TH ST.
42ND ST.
W. 42ND ST.
HUDSON RIVER
COLUMBUS AVE.
NINTH AVE.
BROADWAY
CENTRAL PARK WEST
COLUMBUS CIRCLE
CENTRAL PARK
CENTRAL PARK SOUTH
W. 58TH ST.
58TH ST.
13 3
FIFTH AVENUE
EIGHTH AVE.
WEST 53RD ST
NOTE: CENTER TRACK ON UPPER LEVEL.
8TH AVE.
W 50TH ST.
50TH ST.
13 3
SIXTH AVE.
7TH AVE.
TIMES SQUARE
W. 42ND ST.
42ND ST.
GRAND CENTRAL 12
PARK AVE
GRAND CENTRAL STATION
12
42ND ST
EAST 42ND ST.
E. 80TH ST.
80TH ST.
76TH ST.
E 76TH ST
E 72ND ST.
72ND ST
THIRD AVE.
SECOND AVE.
67TH ST.
E. 67TH ST.
E. 65TH ST.
65TH ST
59TH ST.
E 59TH ST
QUEENSBORO BRIDGE
E 57TH ST.
57TH ST. 31 41
NOTE: SOUTHBOUND TRACK FROM QUEENS AND CENTER PLATFORM ON UPPER LEVEL. (SHOWN DOTTED)
53RD ST.
E 53RD ST
E. 50TH ST.
50TH ST
47TH ST.
E. 47TH ST.
E 42ND ST
42ND ST
EAST RIVER
9
APR 10-76
2
GRAND CENTRAL
3

LEFT: Elevated railways and tree-lined streets are usually incompatible. The soot and shadow as well as the accompanying commercial development near el stations made it virtually impossible for anything to grow. The grounds of the American Museum of Natural History at 79th Street and Columbus Avenue were the source of the greenery in this 1937 view of the Ninth Avenue el. *Herman Rinke.* BELOW: A downtown Third Avenue local pauses at 99th Street on a brisk February day in 1954. The building at left, a substation providing power for the el, is still used by New York's rapid transit system, having been turned into a turnstile maintenance facility. *Herbert H. Harwood*

BELOW: Lincoln Square was the center of a residential nelghborhood in 1933. An uptown Ninth Avenue express enters the upper level of the 66th Street station as a downtown local pulls out from the lower level. The intersection of 65th Street, Broadway and Columbus Avenue is now dominated by Lincoln Center, New York City's home for the performing arts. *Edward B. Watson collection*


5
W. 117TH ST.
W. 116TH ST.
W. 115TH ST.
116TH ST.
EIGHTH AVE.
110TH ST.
W. 110TH ST.
MANHATTAN AVE.
104TH ST.
W. 104TH ST
99TH ST.
W. 99TH ST.
CENTRAL PARK WEST
COLUMBUS AVE.
93RD ST.
W. 93RD ST.
86TH ST.
W. 86TH ST.
CENTRAL PARK
FIFTH AVENUE
SEE INSERT ON PLATE 10 FOR LARGE SCALE PLAN OF 98TH ST. YARD.
E. 121ST ST.
E. 117TH ST
E. 116TH ST.
116TH ST.
117TH ST.
THIRD AVE.
SECOND AVE.
E. 111TH ST.
111TH ST.
106TH ST.
E. 106TH ST.
E. 105TH ST.
105TH ST.
99TH ST.
E. 99TH ST.
E. 98TH ST.
98TH ST. YARD
PARK AVE.
92ND ST.
E. 92ND ST.
89TH ST.
E. 89TH ST.
E. 86TH ST.
86TH ST.
84TH ST.
E. 84TH ST.
3
CENTRAL PARK
4



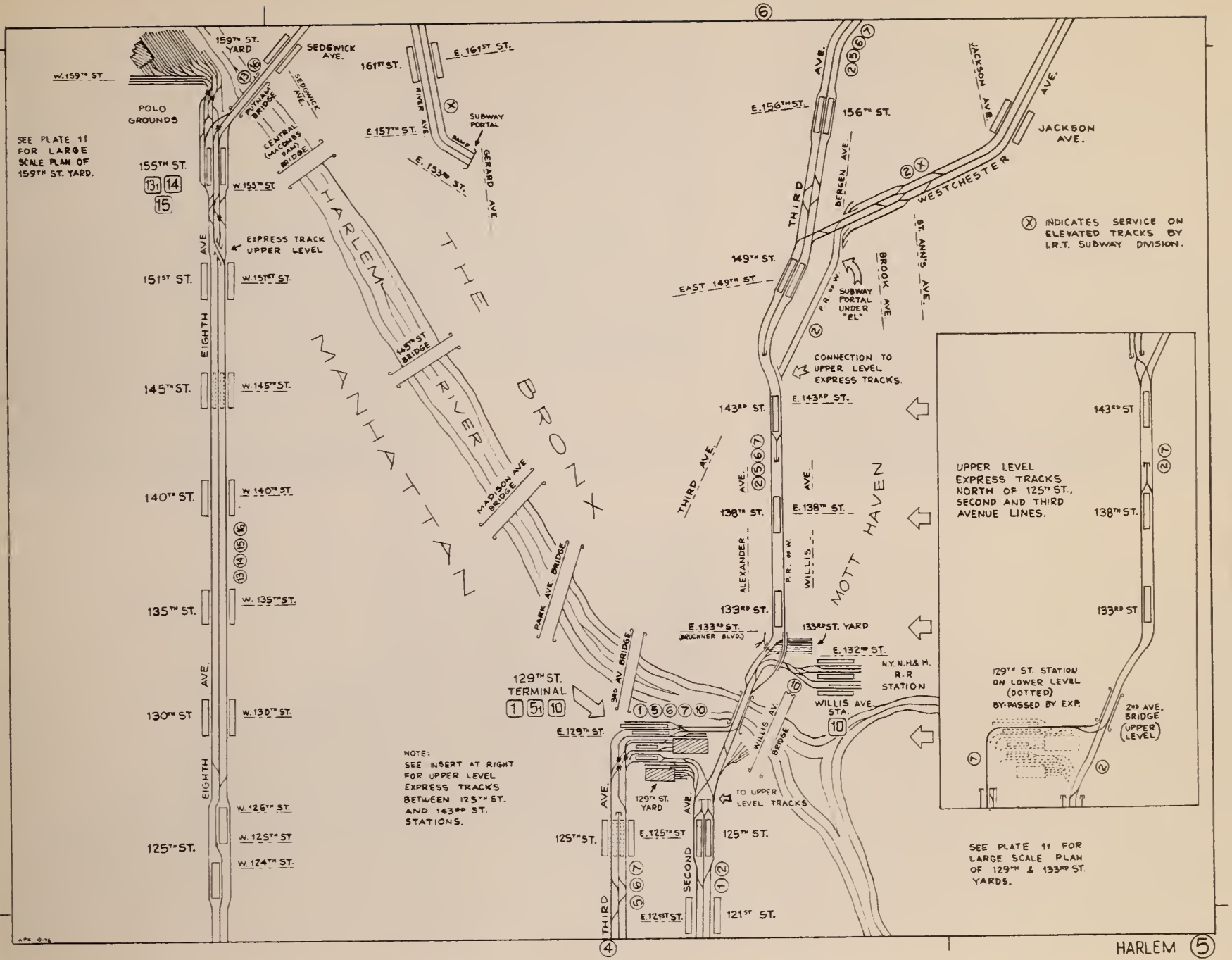
UPPER LEFT: The entire 34th Street branch of the Third Avenue el is shown in these two views. The track arrangement provided for a maximum of two trains, each able to scoot back and forth on its own track. The left photo shows a single-car shuttle on the south track at the East River terminal and a Long Island Rail Road ferry in its slip. The right photo shows the branch crossing under the Second Avenue el and terminating at the Third Avenue el. In addition to providing access to the LIRR ferry, the line was used as a shuttle for passengers transferring between the two east side el lines. *Sprague Library photos.* UPPER RIGHT: The three-track end of the Sixth Avenue el at Central Park South (59th Street) in 1914. Shuttle trains between the 58th Street terminal and 50th Street provided service on the stub except during rush hours, when through service was operated to Rector Street. *Edward B. Watson collection.* LOWER RIGHT: A 1916 view of Grand Central Terminal showing a 42nd Street shuttle stopped at the spur's stub-end station just short of the Park Avenue viaduct. Two New York and Harlem streetcars are below the viaduct and a Third Avenue Railway car is below the el.

Robert L. Presbrey collection

AVERY
DURST

Because its streets are laid out in a grid pattern and most office buildings and theatres are located on flat ground, it is not readily perceived that Manhattan has a number of steep hills, dividing the island into neighborhoods. Morningside Heights and Washington Heights, which are located on the western portion of the island north of 110th Street, lie at a considerably higher altitude than the area to the east. The Ninth Avenue el turned east from Columbus Avenue onto 110th Street (Cathedral Parkway) and then north again at Eighth Avenue, skirting the western edge of Harlem. Since the streets dip considerably along that route, and the structure had to be built to avoid abrupt changes in grade, the 110th Street station was over 100 feet above the street. The tall, spindly, three-track structure, so high above the street, gave the el an air of danger and the two 90-degree turns were commonly called "Suicide Curve." The line was extended from 104th Street to 125th Street in 1879. Built as a double-track structure with sufficient room for a center track (added in 1892), it did not have a station at 110th Street until 1903, just after electrification, when elevators could be installed to move the passengers from the street to the station platforms. TOP LEFT: Suicide Curve did not look the least bit scary from the platform at 110th Street. A three-car train takes the curve onto Columbus Avenue in April 1940. *George E. Votava.* ABOVE: A view from below shows the structure snaking its way from Columbus Avenue onto 110th Street. BOTTOM LEFT: A steam engine pulls an uptown Sixth or Ninth Avenue train through a sparsely settled neighborhood, circa 1886. *both Sprague Library collection*

UPPER RIGHT: A five-car train of Composites clatters across the diamond from the Bergen Avenue cutoff onto the upper level of the Third Avenue el just north of the 143rd Street station. The two express tracks on the top of the bi-level structure combined into a single track at the junction. This track then descended to the lower level to become the center express track at the 149th Street station. *George E. Votava.* LEFT: The gap between the two tracks on the upper level of the Third Avenue el provided sufficient clearance for a ramp from the lower level at the 143rd Street station to the upper level at 138th Street. The ramp was not normally used in regular service. This 1940 view shows a morning rush hour downtown express of Composite cars en route to City Hall via the Second Avenue el. The uptown track was used to lay up these Second Avenue-Freeman Street trains after the evening rush hour. The bi-level structure was built over private right-of-way. *George E. Votava.* LOWER RIGHT: Looking north from the uptown local platform of the 151st Street and Eighth Avenue station in April 1940, an MUDC-equipped downtown express on the upper level races a similarly equipped local. The track arrangement permitted local trains terminating at 155th Street to turn back without interfering with through trains to and from The Bronx. The "S20" sign in the left foreground instructed motormen to slow to 20 mph. *George E. Votava*

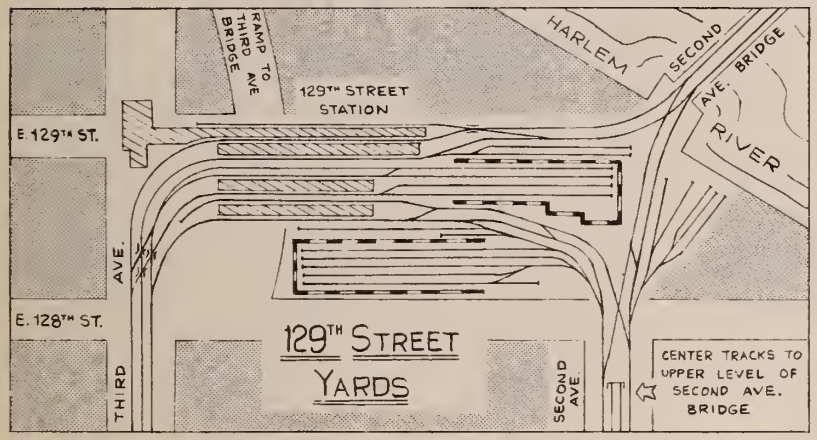

6
159TH ST. YARD
SEDGWICK AVE.
W. 159TH ST
POLO GROUNDS
SEE PLATE 11 FOR LARGE SCALE PLAN OF 159TH ST. YARD.
PUTNAM BRIDGE
CENTRAL (MACOMBS DAM) BRIDGE
155TH ST.
W. 155TH ST.
EXPRESS TRACK UPPER LEVEL
151ST ST.
W. 151ST ST.
EIGHTH AVE.
145TH ST.
W. 145TH ST.
140TH ST.
W. 140TH ST.
135TH ST.
W. 135TH ST.
130TH ST.
W. 130TH ST.
125TH ST.
W. 126TH ST.
W. 125TH ST
W. 124TH ST.
161ST ST.
E. 161ST ST.
RIVER AVE.
E 157TH ST.
SUBWAY PORTAL
RAMP
E. 153RD ST.
GERARD AVE.
HARLEM RIVER
145TH ST BRIDGE
MADISON AVE BRIDGE
PARK AVE. BRIDGE
THE BRONX
MANHATTAN
129TH ST. TERMINAL
1 51 10
3RD AV BRIDGE
E. 129TH ST.
NOTE:
SEE INSERT AT RIGHT FOR UPPER LEVEL EXPRESS TRACKS BETWEEN 125TH ST. AND 143RD ST. STATIONS.
129TH ST. YARD
THIRD AVE.
E. 125TH ST
125TH ST.
SECOND AVE.
E. 121ST ST.
121ST ST.
THIRD
4
E. 156TH ST.
156TH ST.
THIRD AVE.
BERGEN AVE.
JACKSON AVE.
WESTCHESTER AVE.
INDICATES SERVICE ON ELEVATED TRACKS BY I.R.T. SUBWAY DIVISION.
149TH ST.
EAST 149TH ST.
P.R. OF W.
SUBWAY PORTAL UNDER "EL"
BROOK AVE.
ST. ANN'S AVE.
CONNECTION TO UPPER LEVEL EXPRESS TRACKS.
E. 143RD ST.
143RD ST.
THIRD AVE.
E. 138TH ST.
138TH ST.
ALEXANDER AVE.
P.R. OF W.
WILLIS AVE.
MOTT HAVEN
E. 133RD ST. (BRUCKNER BLVD.)
133RD ST.
133RD ST. YARD
E. 132ND ST.
N.Y. N.H. & H. R.R STATION
WILLIS AVE. STA.
10
WILLIS AV. BRIDGE
TO UPPER LEVEL TRACKS
UPPER LEVEL EXPRESS TRACKS NORTH OF 125TH ST., SECOND AND THIRD AVENUE LINES.
129TH ST. STATION ON LOWER LEVEL (DOTTED) BY-PASSED BY EXP.
2ND AVE. BRIDGE (UPPER LEVEL)
SEE PLATE 11 FOR LARGE SCALE PLAN OF 129TH & 133RD ST. YARDS.
HARLEM
5

UPPER LEFT: A downtown train of MUDC cars enters the bi-level station at Third Avenue and 125th Street in 1954. Express trains operated on both levels at this station, with "Through Expresses" above. If the train shown in this photo was a local express from The Bronx, it would enter the express track by taking the switch south of the station. *Herbert H. Harwood.* **LOWER LEFT: Looking east along 123rd Street an uptown through express heads "up the hump" to the upper level of the 125th Street station. This view, of former BMT "Q" cars, was taken in May 1955.** *Herbert H. Harwood.* **UPPER RIGHT: A downtown local of gate cars approaches the 125th Street station of the Second Avenue el in 1940. The ramp leading to the upper level of the Harlem River bridge was used in rush hours only by trains to and from Freeman Street.** *George E. Votava.* **LOWER RIGHT: A seven-car train of gate cars laid up on the ramp to the upper level of the Harlem River Bridge at 127th Street and Second Avenue.**

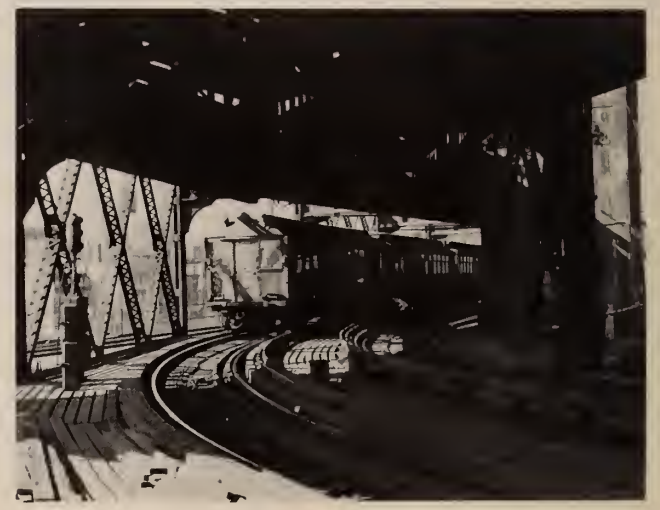
George E. Votava

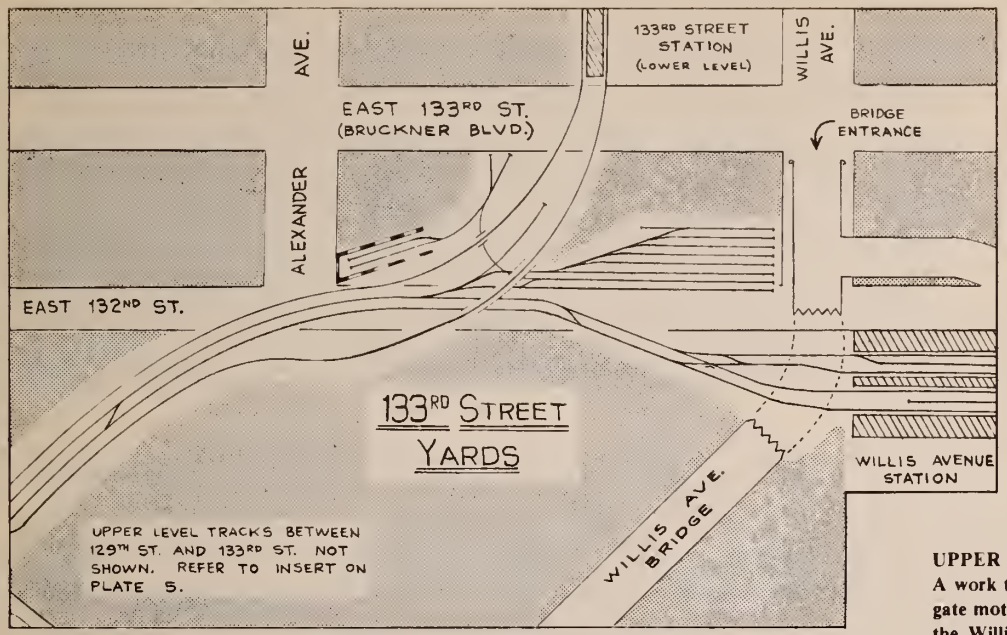
The 129th Street terminal and yard complex was built between 1886 and 1898 to serve both the Second and Third Avenue els as well as the Suburban line to The Bronx. The station was used to turn back local trains on both lines and thus served as a transfer point. UPPER LEFT: A view of the curve at Third Avenue and 129th Street in June 1940. A northbound train of Composites bound for The Bronx zips by the station and several trains of gate cars. *George E. Votava.* UPPER RIGHT: Looking west at the 129th Street terminal from Second Avenue. The platform at left was part of the yard and not open to passengers. *George E. Votava.* BOTTOM: A view of 129th Street In 1949, showing the express track bypassing the station at right and the overhead walkway connecting the platforms. *David L. Klepper*

IRT LINES



TOP: The bi-level swing bridge that carried Second and Third Avenue el trains across the Harlem River between Manhattan and The Bronx. In this view looking westward in 1940 a 5-car train of gate cars is Manhattan-bound in the morning rush hour. *George E. Votava.* **MIDDLE LEFT: An uptown train of MUDCs comes off the lower level of the bridge and crosses over the New Haven Railroad yards in March 1954.** *Herbert H. Harwood.* **LOWER LEFT: A view of the Harlem River crossing from the electrified New Haven Railroad tracks in 1940. A deadheading train of Composite cars heading for The Bronx on the upper level and an uptown MUDC local below pass during the morning rush hour.** *George E. Votava.* **LOWER RIGHT: An uptown train of MUDCs leaves 129th Street and approaches the Harlem River Bridge in 1954.** *Herbert H. Harwood*



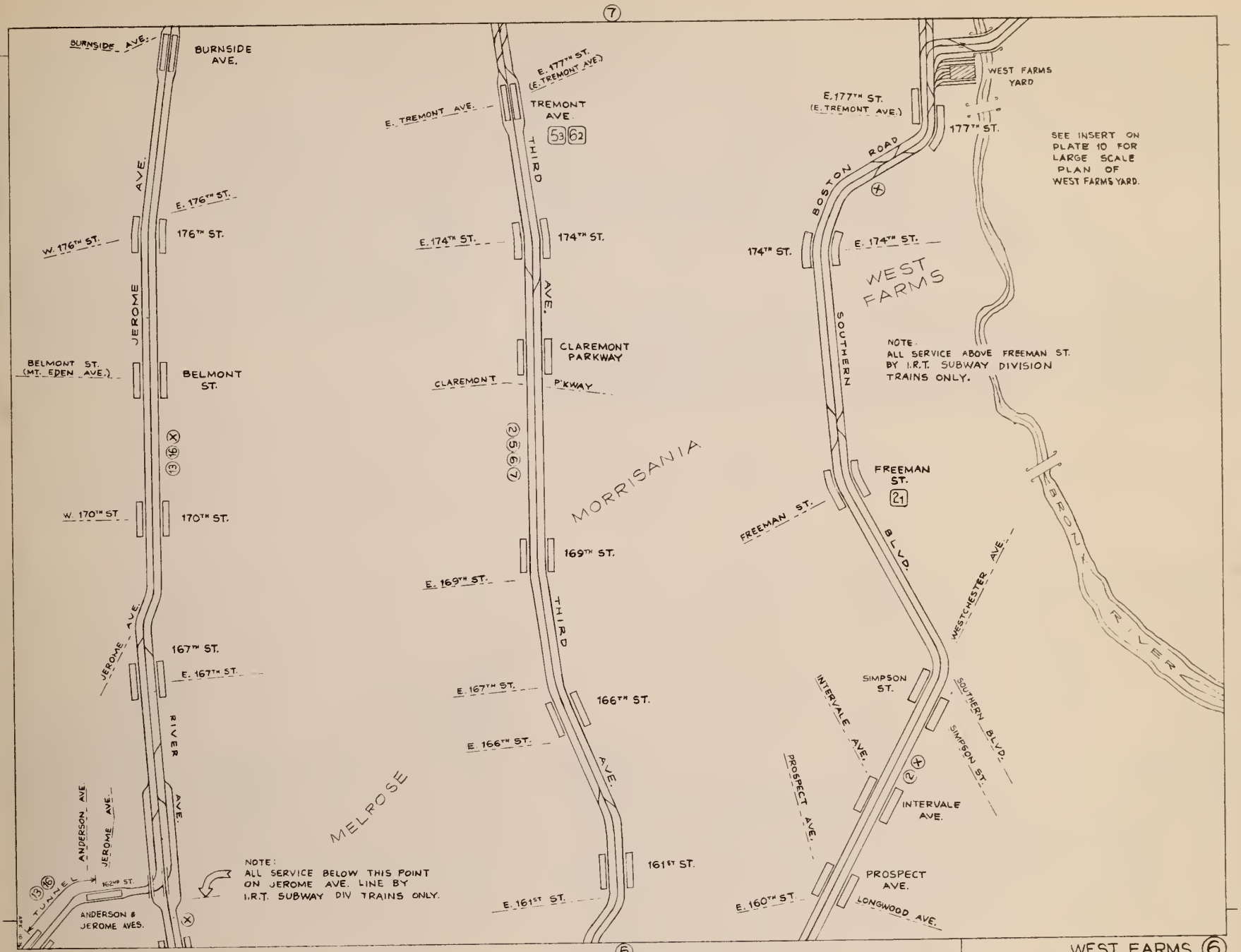


UPPER RIGHT: Looking south at the lead tracks into the "Suburban's" 132nd Street yard in 1938. A work train consisting of flat car No. 4 (Wason 1878), drill motor No. 59 (Pressed Steel 1906) and gate motor No. 807 (Pullman 1881) is in the foreground. *E. Alfred Seibel.* **BOTTOM:** Two views of the Willis Avenue spur of the east side el lines. Shuttle trains connected 129th Street with the Harlem River terminal of the New Haven Railroad and its subsidiary, the New York, Westchester and Boston. Since express trains did not stop at 129th Street, access to the commuter lines was rather slow. The New Haven Railroad service was abandoned in 1931, the el shuttle in 1924, and the NYW&B in 1937. The approach to the Willis Avenue vehicular bridge, which crossed over the spur's trackage, is shown in these 1919 views. *The Municipal Archives*

THIS PAGE— The 155th Street terminal of the Sixth and Ninth Avenue els was located at the end of Eighth Avenue alongside the Harlem River. It was the southern terminal of the New York and Northern Railroad (later the Putnam Division of the New York Central Railroad) and afforded suburbanites an easy transfer to rapid transit trains for distribution into downtown New York. (In this way it was similar to 129th Street on the Second and Third Avenue els, which was serviced by suburban trains of the New Haven Railroad.) TOP: The Polo Grounds ball park is prominent in this 1920 view of 155th Street. Included in the background are the 159th Street yards and the High Bridge and Tower, an important part of New York City's water supply system. *Sprague Library collection.* RIGHT: By 1933 a new Polo Grounds had been built to serve the New York Giants baseball team. Of the two platforms, the one on the east side was used by through trains to and from The Bronx, while the other served trains terminating at 155th Street. *courtesy Edward B. Watson.* LOWER LEFT: Because of the topography of the area, access between the street and the elevated station was both upward and downward. This photo of the south end of the station shows stairways leading down (to Eighth Avenue) and up (to the 155th Street viaduct that connected "Coogan's Bluff" with the McCombs Dam Bridge to The Bronx). Another passageway, running neither upward nor downward, connected the north end of the station with the Polo Grounds. *Sprague Library collection*

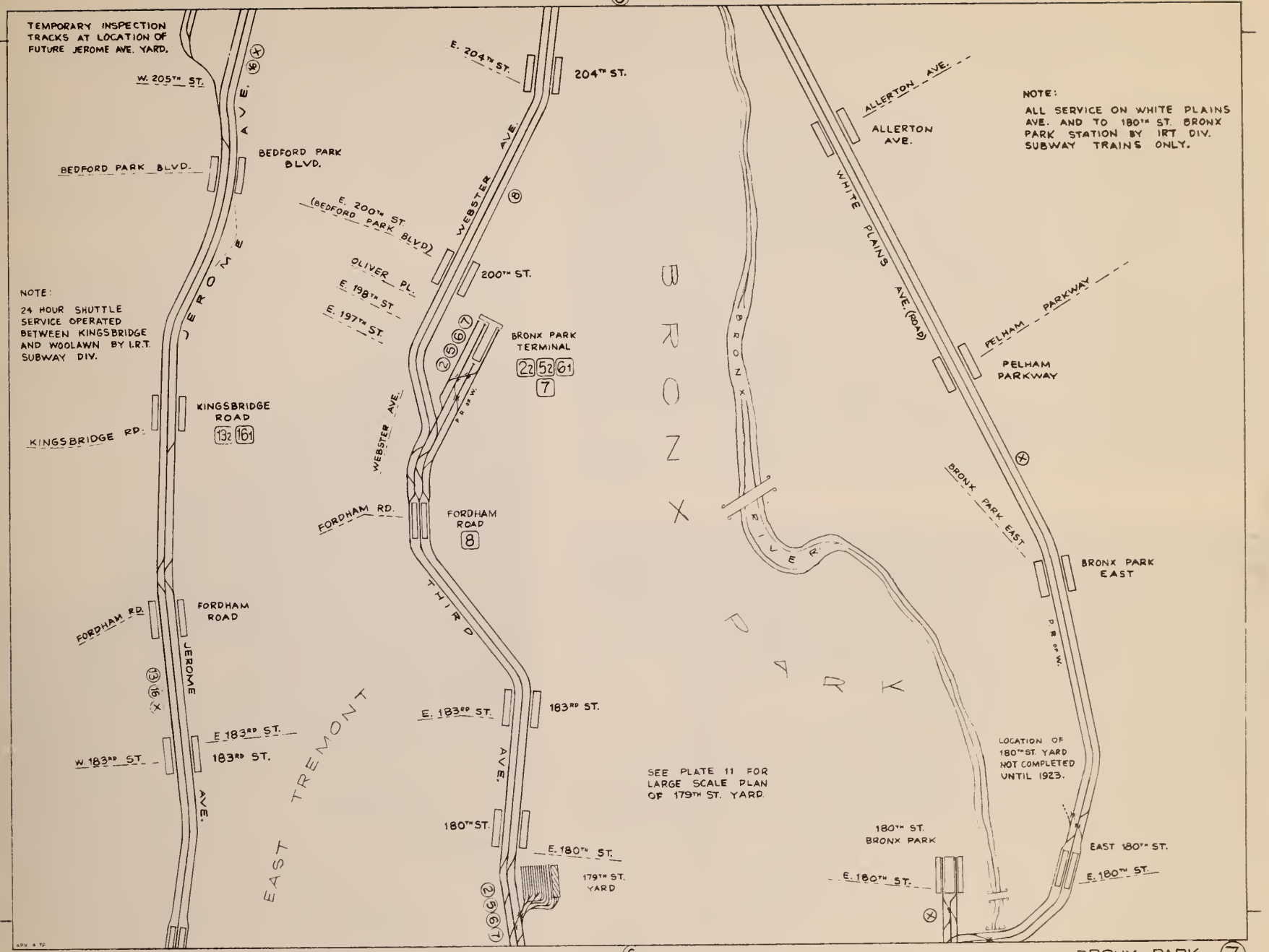
OPPOSITE PAGE — The Dual Contracts extension of the Sixth and Ninth Avenue els across the Putnam Bridge into The Bronx was completed in 1918. At that time the New York Central's train service was cut back to the Sedgwick Avenue station on the other side of the Harlem. TOP: Two views of trains from the Sedgwick Avenue station in June 1940. At left a train of Composites heads toward Manhattan. At right a downtown el train pulls into the station from the ¼-mile tunnel cutting under the Highbridge section of The Bronx. *both George E. Votava.* MIDDLE LEFT: An exterior view of the brand new Sedgwick Avenue station in 1918. The brick building in the background was the new stub-end terminal of the New York Central's Putnam Division. MIDDLE RIGHT: The eastern portal of the el's subway was in the middle of the Jerome and Anderson Avenue station, located along 162nd Street above Jerome Avenue and below Anderson Avenue. *both courtesy Robert L. Presbrey.* BOTTOM: A view looking north toward Jerome Avenue showing a train of gate cars approaching the junction with the Jerome Avenue subway line at 162nd Street and River Avenue. *Sprague Library collection.* After the Ninth Avenue el was abandoned in 1940 this section of the transit system continued in operation as the "Polo Grounds Shuttle" until 1958, the year after the Giants moved to San Francisco and the year the New York Central abandoned passenger service on its Putnam division and with it, the Sedgwick Avenue terminal.

UPPER LEFT: The central Bronx developed rapidly after through service from Manhattan was inaugurated at the end of the nineteenth century. As part of the Dual Contracts a third track was added to the Third Avenue el through both Manhattan and The Bronx. In October 1915 the work of rebuilding the Tremont Avenue station of the "Suburban" into an express stop was nearing completion. *courtesy Francis J. Goldsmith, Jr.* UPPER RIGHT: A grade separated junction between the Ninth Avenue el and the Jerome Avenue branch of the Lexington Avenue subway was constructed in the marshes of the West Bronx as part of the Dual Contracts. This 1918 view shows a subway shuttle train of Low-V cars laid up in the center track. *Interborough Archives.* LOWER RIGHT: By 1940 the neighborhood along River Avenue had been developed for many years. In this view from the end of the uptown platform, a downtown MUDC-equipped Ninth Avenue el train rolls into 167th Street. The sign in front of the workmen maintaining the signal indicated the stopping point for 10-car subway trains and 7-car (Manhattan) el trains. *George E. Votava*

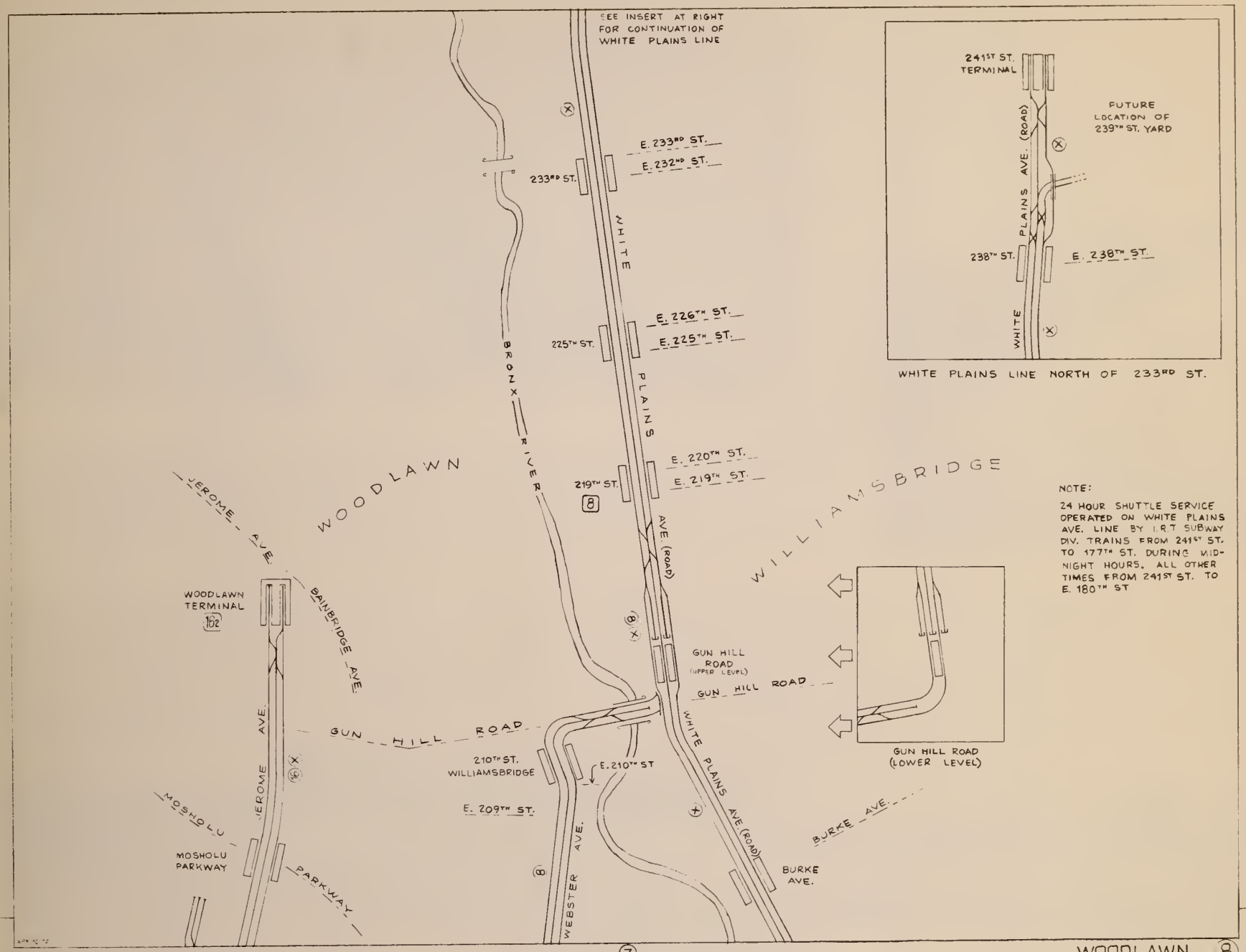

7
BURNSIDE AVE.
BURNSIDE AVE.
JEROME AVE.
E. 176TH ST.
W. 176TH ST.
176TH ST.
BELMONT ST. (MT. EDEN AVE.)
BELMONT ST.
W. 170TH ST.
170TH ST.
JEROME AVE.
167TH ST.
E. 167TH ST.
RIVER AVE.
ANDERSON AVE.
JEROME AVE.
TUNNEL
162ND ST.
ANDERSON & JEROME AVES.
NOTE: ALL SERVICE BELOW THIS POINT ON JEROME AVE. LINE BY I.R.T. SUBWAY DIV TRAINS ONLY.
MELROSE
E. 177TH ST. (E. TREMONT AVE.)
E. TREMONT AVE.
TREMONT AVE.
53 62
THIRD AVE.
E. 174TH ST.
174TH ST.
CLAREMONT PARKWAY
CLAREMONT P'KWAY
2 5 6 7
MORRISANIA
169TH ST.
E. 169TH ST.
THIRD AVE.
E. 167TH ST.
166TH ST.
E. 166TH ST.
161ST ST.
E. 161ST ST.
E. 177TH ST. (E. TREMONT AVE.)
WEST FARMS YARD
177TH ST.
SEE INSERT ON PLATE 10 FOR LARGE SCALE PLAN OF WEST FARMS YARD.
BOSTON ROAD
174TH ST.
E. 174TH ST.
WEST FARMS
SOUTHERN BLVD.
NOTE: ALL SERVICE ABOVE FREEMAN ST. BY I.R.T. SUBWAY DIVISION TRAINS ONLY.
FREEMAN ST.
21
FREEMAN ST.
BRONX RIVER
WESTCHESTER AVE.
SIMPSON ST.
SOUTHERN BLVD.
INTERVALE AVE.
SIMPSON ST.
PROSPECT AVE.
2
INTERVALE AVE.
PROSPECT AVE.
E. 160TH ST.
LONGWOOD AVE.
5
WEST FARMS 6

ABOVE: A snowy day in The Bronx. From Fordham Road to Bronx Park the Third Avenue el structure was built over private right-of-way between the New York Central tracks and the grounds of Fordham University. This 1938 view shows a train of Composites on the el and a train of New Haven Railroad MUs on the Harlem Division just beyond the Fordham station platform. *E. Alfred Seibel.* BELOW: The Third Avenue el at 180th Street station. An uptown train of MUDCs leaves the station and approaches a string of gate cars laid up on the express tracks. *Robert L. Presbrey collection*

ABOVE: An uptown train of gate cars at the 204th Street station of the Third Avenue el on a windy day in 1949. *David L. Klepper.* BELOW: A train of High-V subway cars just north of the East 180th Street station of the White Plains Road line in 1918. At right are the tracks and catenary towers of the New York, Westchester & Boston Railway. Today, the catenary has been replaced by third rail and the "Westchester" is the IRT Dyre Avenue branch. A grade separated junction now connects the two lines at this point adjacent to the 180th Street yard. The yard tracks shown in this view were temporary, as a permanent facility was under construction. Note that both subway and elevated type third rail are present in this view. *Interborough Archives*

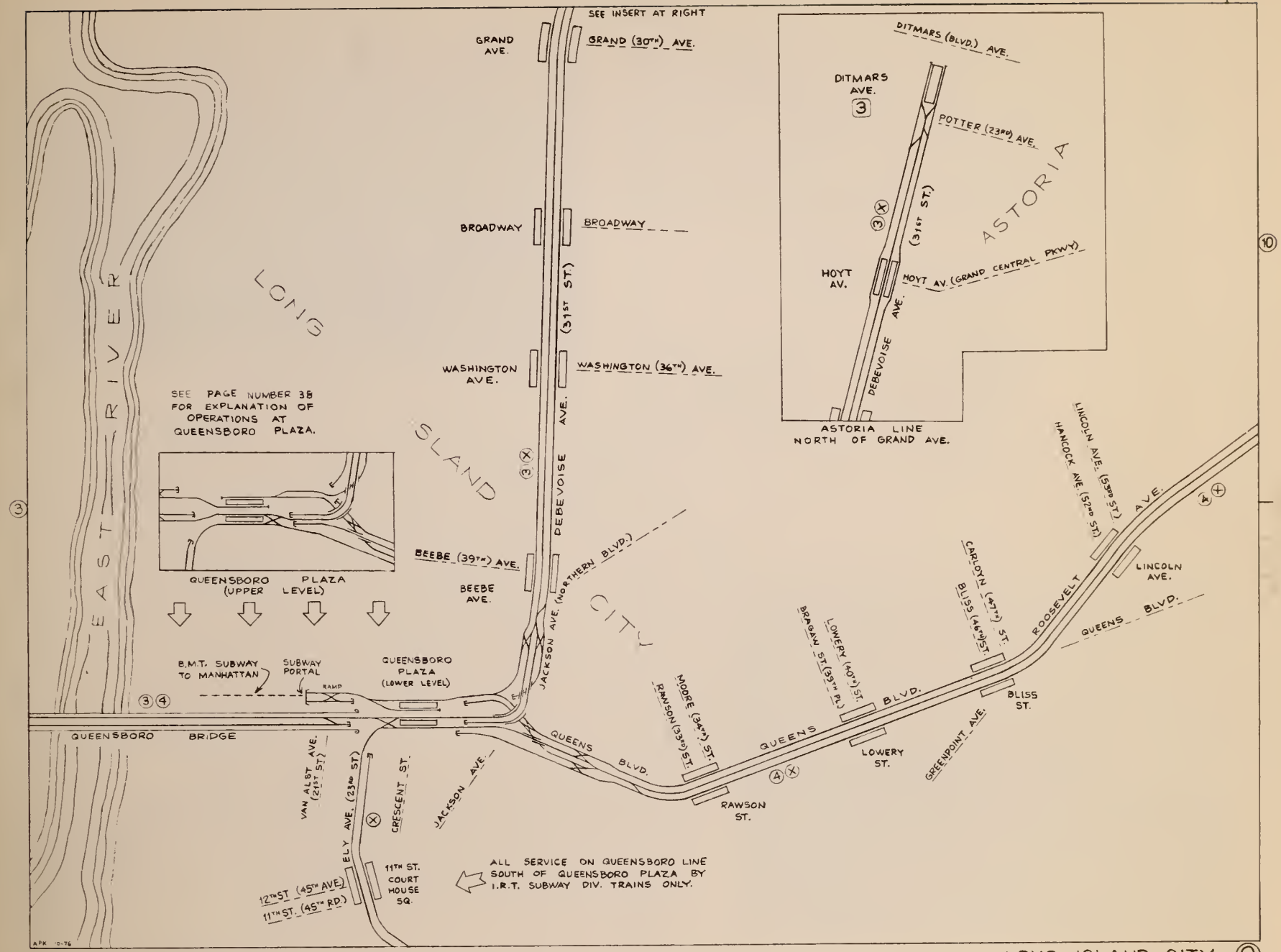

TEMPORARY INSPECTION TRACKS AT LOCATION OF FUTURE JEROME AVE. YARD.
W. 205TH ST.
JEROME AVE.
BEDFORD PARK BLVD.
BEDFORD PARK BLVD.
E. 204TH ST.
204TH ST.
WEBSTER AVE.
E. 200TH ST. (BEDFORD PARK BLVD.)
OLIVER PL.
E. 198TH ST.
E. 197TH ST.
200TH ST.
BRONX PARK TERMINAL
22 52 61
7
NOTE:
24 HOUR SHUTTLE SERVICE OPERATED BETWEEN KINGSBRIDGE AND WOOLAWN BY I.R.T. SUBWAY DIV.
KINGSBRIDGE ROAD
132 161
KINGSBRIDGE RD.
WEBSTER AVE.
P.R. OF W.
FORDHAM RD.
FORDHAM ROAD
8
FORDHAM RD.
FORDHAM ROAD
JEROME AVE.
THIRD AVE.
E. 183RD ST.
183RD ST.
E 183RD ST.
W. 183RD ST.
183RD ST.
EAST TREMONT
E. 180TH ST.
180TH ST.
E. 180TH ST.
179TH ST. YARD
SEE PLATE 11 FOR LARGE SCALE PLAN OF 179TH ST. YARD.
BRONX
PARK
RIVER
ALLERTON AVE.
ALLERTON AVE.
NOTE:
ALL SERVICE ON WHITE PLAINS AVE. AND TO 180TH ST. BRONX PARK STATION BY IRT DIV. SUBWAY TRAINS ONLY.
WHITE PLAINS AVE. (ROAD)
PELHAM PARKWAY
PELHAM PARKWAY
BRONX PARK EAST
BRONX PARK EAST
P.R. OF W.
LOCATION OF 180TH ST YARD NOT COMPLETED UNTIL 1923.
180TH ST. BRONX PARK
E. 180TH ST.
EAST 180TH ST.
E. 180TH ST.

UPPER LEFT: A northbound train approaches the end of the line in this view looking west from the upper level of the Gun Hill Road station in June 1952. This section of the Third Avenue el lasted only 53 years, having been built as part of the Dual Contracts in 1920 and abandoned in 1973. *Herbert H. Harwood.* **LOWER LEFT: The lower level of the Gun Hill Road station was occupied by the Third Avenue el, while the upper level was used by subway trains. This train of Composites, operating as a shuttle to Fordham Road, is shown on the northbound track. This view shows the door controls at the ends of the cars very clearly; the large handle operated the end door and the small one the center.** *Robert L. Presbrey collection.* **LOWER RIGHT: a 1920 view of the connection to the temporary yard of the Jerome Avenue branch of the Lexington Avenue subway. The wooden structure was removed when the permanent yard was opened shortly after this photo was taken.** *Robert L. Presbrey collection*

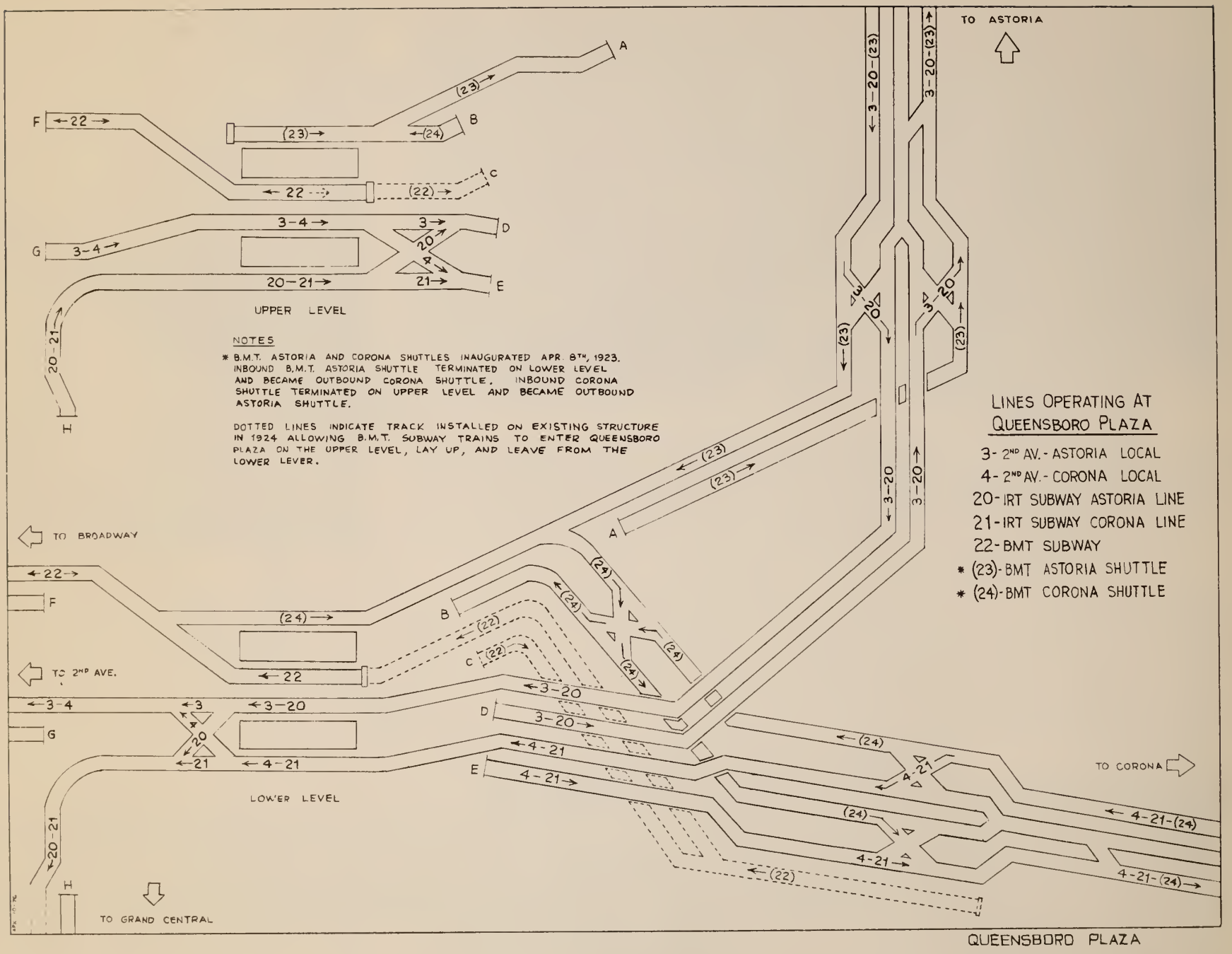

SEE INSERT AT RIGHT FOR CONTINUATION OF WHITE PLAINS LINE
E. 233RD ST.
E. 232ND ST.
233RD ST.
WHITE PLAINS AVE. (ROAD)
E. 226TH ST.
E. 225TH ST.
225TH ST.
BRONX RIVER
E. 220TH ST.
E. 219TH ST.
219TH ST.
8
WOODLAWN
WILLIAMSBRIDGE
JEROME AVE.
WOODLAWN TERMINAL
182
BAINBRIDGE AVE.
GUN HILL ROAD
(UPPER LEVEL)
GUN HILL ROAD
GUN HILL ROAD
210TH ST. WILLIAMSBRIDGE
E. 210TH ST
E. 209TH ST.
WHITE PLAINS AVE. (ROAD)
JEROME AVE.
MOSHOLU
MOSHOLU PARKWAY
PARKWAY
WEBSTER AVE.
BURKE AVE.
BURKE AVE.
241ST ST. TERMINAL
FUTURE LOCATION OF 239TH ST. YARD
238TH ST.
E. 238TH ST.
WHITE PLAINS AVE. (ROAD)
WHITE PLAINS LINE NORTH OF 233RD ST.
GUN HILL ROAD (LOWER LEVEL)
NOTE:
24 HOUR SHUTTLE SERVICE OPERATED ON WHITE PLAINS AVE. LINE BY I.R.T SUBWAY DIV. TRAINS FROM 241ST ST. TO 177TH ST. DURING MIDNIGHT HOURS. ALL OTHER TIMES FROM 241ST ST. TO E. 180TH ST

UPPER LEFT: A three-car train of gate cars from Astoria heads across the upper level of the Queensborough Bridge toward Manhattan and the Second Avenue el in 1931. *The Municipal Archives.* **UPPER RIGHT: A downtown Second Avenue el train at the Rawson Street (33rd Street) station on the beautiful new concrete viaduct carrying the Corona line along Queens Boulevard. Queens was a vast desert before dependable mass transit provided the basis for its development as New York City's borough of private homes.** *Edward B. Watson collection.* **BOTTOM: Looking northward at the Queens end of the Queensborough Bridge. A Queens-bound train of gate cars from the Second Avenue el approaches the upper level of the Queensborough Plaza station in 1930.**

Interborough Archives

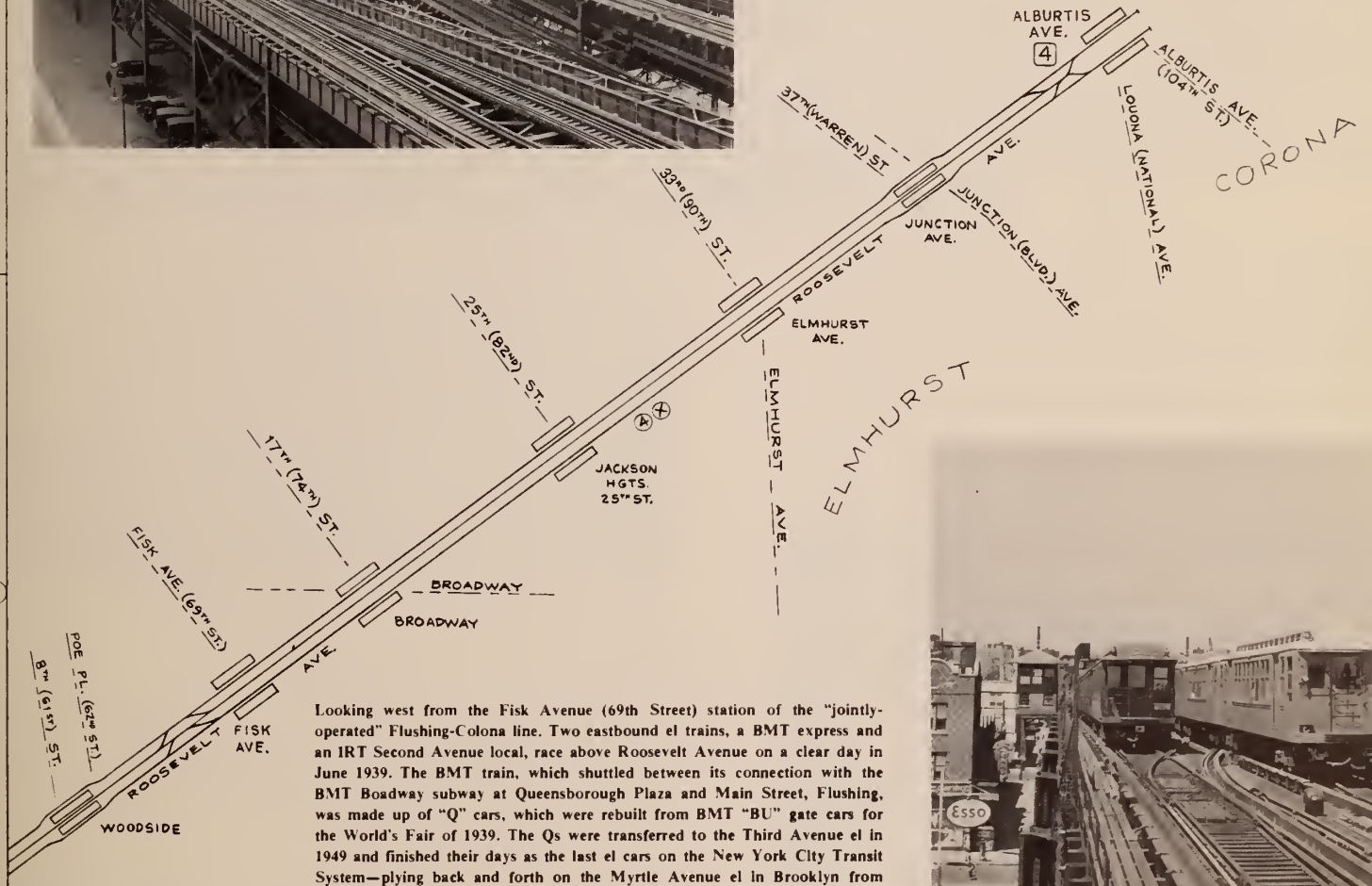


LONG ISLAND CITY (9)

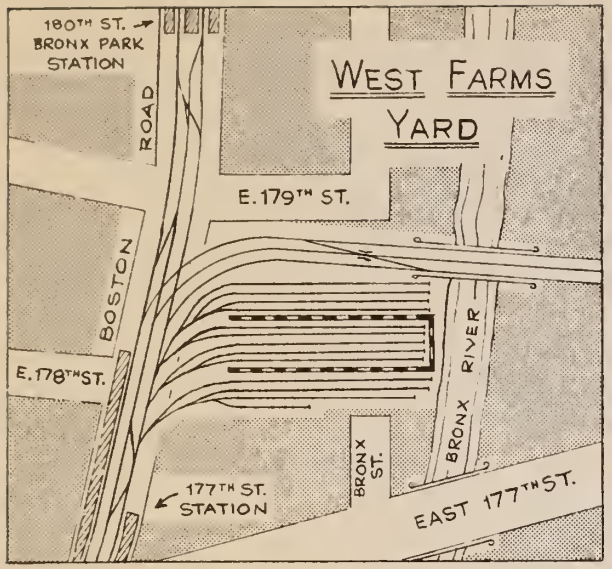


QUEENSBORO PLAZA

Looking east at Queensborough Plaza. One of the most complicated junctions in New York's rapid transit system, the "spaghetti" of elevated trackage allowed access between the BMT subway (60th Street tunnel), IRT subway (Steinway tunnel) and IRT Second Avenue el (Queensborough Bridge) on one hand, and the Astoria and Corona lines on the other. The tall track used to turn back BMT subway trains from Manhattan has not yet been installed, indicating the photo was taken prior to 1924. The BMT had a serious disadvantage in serving Queens, as its ten-foot-wide subway cars could not operate east of Queensborough Plaza. The loading gauge of the Astoria and Corona lines only permitted the operation of nine-foot-wide cars, and thus the only through service to Manbattan was operated by the IRT, via both the subway and el lines. BMT shuttle trains did not begin operating until 1923. By the end of 1949 the Astoria line's platforms had been cut back and through service by BMT Division subway trains had begun. The Flushing-Corona line was then served exclusively by the IRT subway, permitting the north side of the Queensborough Plaza station (both levels) to be torn down. *Interborough Archives*

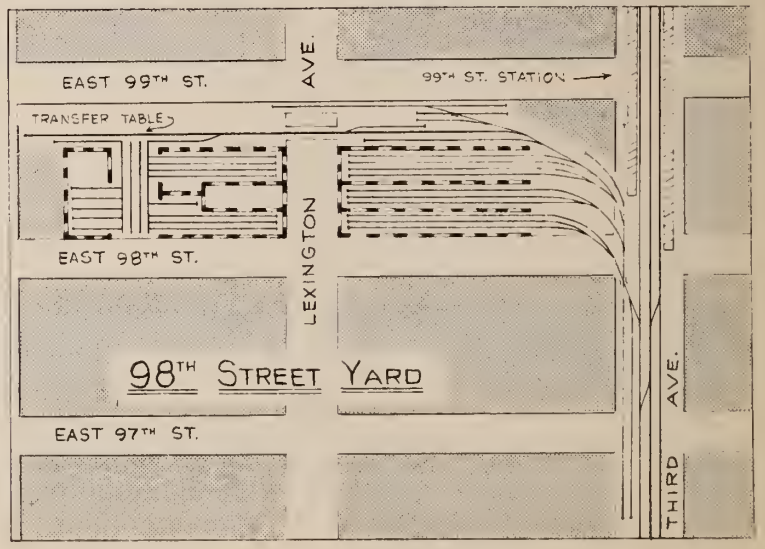


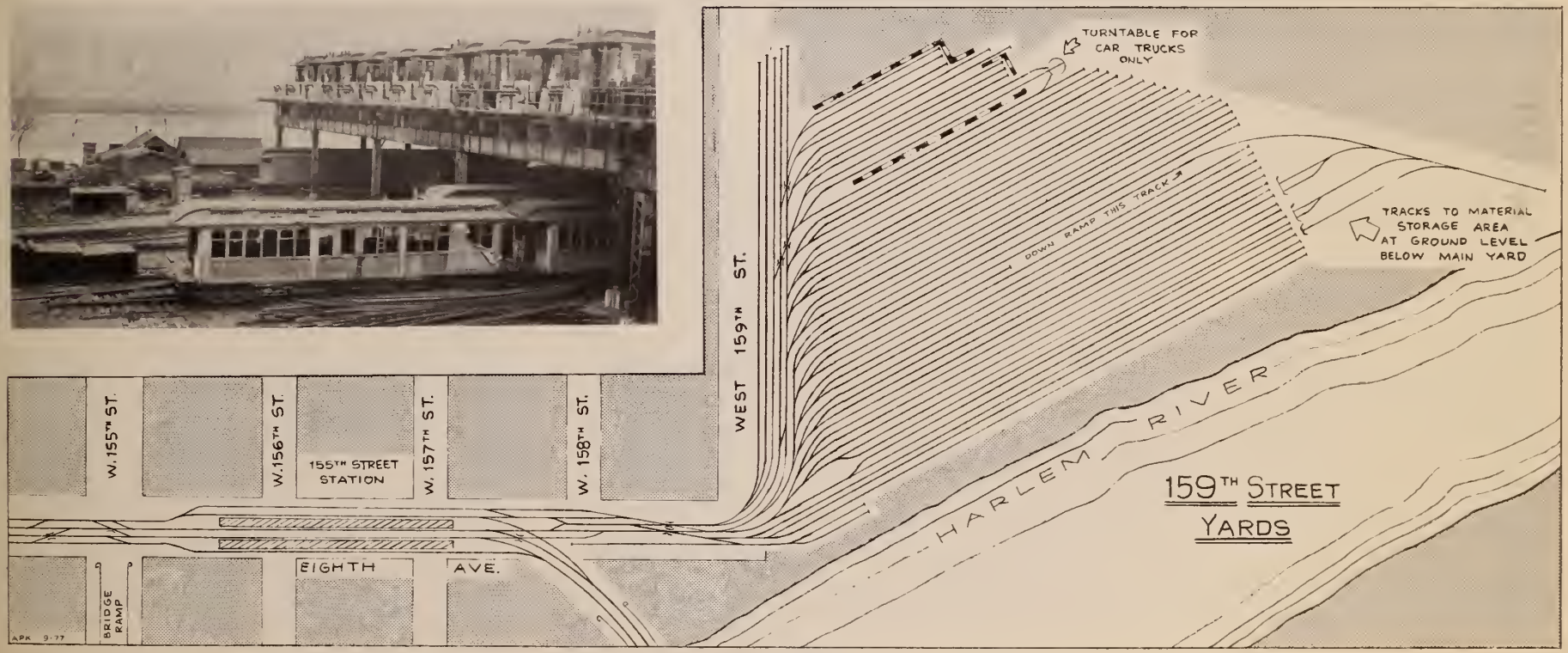
Looking west from the Fisk Avenue (69th Street) station of the "jointly-operated" Flushing-Colona line. Two eastbound el trains, a BMT express and an IRT Second Avenue local, race above Roosevelt Avenue on a clear day in June 1939. The BMT train, which shuttled between its connection with the BMT Boadway subway at Queensborough Plaza and Main Street, Flushing, was made up of "Q" cars, which were rebuilt from BMT "BU" gate cars for the World's Fair of 1939. The Qs were transferred to the Third Avenue el in 1949 and finished their days as the last el cars on the New York City Transit System—plying back and forth on the Myrtle Avenue el in Brooklyn from 1958 to 1969. *George E. Votava*



UPPER RIGHT: The back of West Farms yard from Devoe Avenue in January 1915. Construction of the IRT White Plains Road extension from West Farms Square to East 180th Street station along the northern edge of the yard was just beginning. *Robert L. Presbrey collection.* **LOWER LEFT: The 99th Street complex on the Third Avenue el contained a small yard and a major shop for the el system. It extended westward for two blocks to Park Avenue with a single track crossing Lexington Avenue at grade.** *George E. Votava.* **OPPOSITE PAGE: 159th Street yard, serving the Sixth and Ninth Avenue els, was the largest on the elevated system, with as many as fifty tracks for car storage. UPPER LEFT: The yard is almost filled to capacity in this view looking south. Both the Polo Grounds, home of the New York Giants, and Yankee Stadium, across the Harlem River and home of the New York Yankees, are shown in this 1940 view. UPPER RIGHT: The yard on September 6, 1911 in a view westward toward Washington Heights.** *Donald W. Harold collection.* **LOWER LEFT: The trackage leading into the material storage area below the main yard. "Open Air Line" trailer No. 762 awaits scrapping in 1938.**

Edward B. Watson collection




TURNTABLE FOR CAR TRUCKS ONLY
DOWN RAMP THIS TRACK
TRACKS TO MATERIAL STORAGE AREA AT GROUND LEVEL BELOW MAIN YARD
WEST 159TH ST.
W. 155TH ST.
W. 156TH ST.
155TH STREET STATION
W. 157TH ST.
W. 158TH ST.
EIGHTH AVE.
BRIDGE RAMP
HARLEM RIVER
159TH STREET YARDS
APK 9-77

One might assume that gingerbread was the principal ingredient in the stations and towers of the early elevated system. TOP: "Ride the open air elevated" was the slogan that was prominently displayed on the outside of the 53rd Street-Eighth Avenue station of the Sixth Avenue el. *courtesy Robert L. Presbrey.* LOWER LEFT: The charming tower that controlled the original terminal of the Sixth Avenue el was located at 57th Street and Sixth Avenue. *Interborough Archives.* LOWER RIGHT: The rather austere interior of the Chatham Square station. Standard equipment for stations included ticket booth, ticket chopper, clock, pot-bellied stove and lavatories. *Interborough Archives*

— OPPOSITE PAGE —

In 1920 there were basically two types of motor cars operating on the el. Gate cars had open platforms, with many built as steam coaches between 1878 and 1886, and later electrified. The last gate cars were built in 1911, some seven years after the opening of the first IRT subway. In order to cut expenses, as gate cars had to have a conductor between each pair of cars, some cars were converted to Multiple Unit Door Control and had their platforms enclosed. This work was performed during 1923 and 1924, and the cars became known as MUDC's. The other type of car running in 1920 was the Composite, whose steel underframe was reinforced with timber and whose wooden floor was covered on the underside with a quarter-inch asbestos transite board. These were the first subway cars ordered by the IRT, but because the cars were combustible, they were subsequently declared a safety hazard and were banned from the subway. Due to their weight, they could carry passengers safely only on the newer portions of the el, specifically the Dual Contract extensions and the express tracks, and therefore operated mostly in rush hours, running light on the older local tracks against the flow of traffic.

UPPER LEFT: No. 1650 was one of 40 gate motors built by Barney and Smith in 1910. The platforms were enclosed and the car converted to MUDC in 1924. *Interborough Archives.* UPPER CENTER: The interior of motor No. 1584 (Wason 1907) was typical of most Manhattan el cars with cross seats for 16 passengers in the center. *Sprague Library photo.* UPPER RIGHT: No. 3306 was part of an order for 500 wood and steel cars for New York City's first subway. The Composites had center doors added between 1910 and 1912 and were transferred to the el lines in 1915. *Interborough Archives.* MIDDLE LEFT: A builder's photo of motor No. 1530, part of an order of 84 cars constructed by Wason in 1907. *courtesy Francis J. Goldsmith, Jr.* MIDDLE RIGHT: Motor No. 854 was built as a steam coach by Gilbert and Bush in 1887. The 94 cars in this series were electrified in 1902-03. *Sprague Library photo.* LOWER LEFT: American Car & Foundry car 142 (later 1219) was the prototype for 36 open bench trailers built by ACF and Jewett in 1902. All were out of service by the end of 1918. *Sprague Library photo.* LOWER RIGHT: No. 571 was one of 40 steam coaches built by Pullman in 1878 and electrified as trailers in 1902-03. *Sprague Library photo*

1530

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